FINANCIAL TIMES

MONDAY 15 MAY 2023

USA $2.50 Canada C$3.00

Can new chief get Twitter back on track?

LINDA YACCARINO PROFILE, PAGE 6

The ‘donut effect’ blighting US cities

RANA FOROOHAR, PAGE 17

Turkey votes
Crunch time for Erdoğan

Turkish president Recep Tayyip Erdoğan meets supporters at a polling station in Istanbul yesterday after voting in the country’s most consequential elections in two decades.

Erdoğan, 69, seeking to extend his two decades in power first as prime minister and then as president, faced his toughest campaign to date against an opposition alliance led by presidential candidate Kemal Kılıçdaroğlu.

The outcome of the presidential and parliamentary elections will carry global resonance since Turkey, a member of Nato, has played an increasingly important role on the international stage in recent years.

Kılıçdaroğlu, 74, vowed to revive the inflation-wracked economy, repair fractious relations with Turkey’s western allies and restore institutions damaged by Erdoğan’s authoritarian policies.

See FT.com for results and analysis

Tolga Bozoglu/ EPA-EFE/Shutterstock

Briefing

▸ Argentina set to bring in emergency fiscal measures
Argentina will today announce a round of emergency government measures, including raising rates 600 basis points to 97 per cent, to try to stave off its worst economic crisis in two decades.— PAGE 2

▸ Mastercard defends fees
Mastercard’s European head has defended the fees it charges as it and rival Visa face UK regulatory probes, dissent from retailers and Big Tech incursions.— PAGE 6

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The shape of a debt ceiling deal is emerging as White House and the Republicans intensify talks to try to avoid a national default.
PAGE 4; GLENN HUBBARD, PAGE 17

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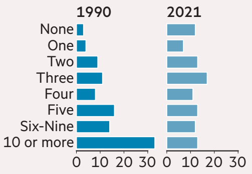
Datawatch

The friendship recession
% of Americans who say they have the following number of close friends*



Sources: Gallup, American Perspectives Survey 2021 *Not counting relatives

In 2021 about 12 per cent of Americans said they had no close friends, compared with 3 per cent in 1990. A recent report by the US surgeon general concluded that Americans are more lonely and socially disconnected than ever before.

G7 and EU to heap pressure on Russia with ban on reopening of gas pipelines

● First embargo since Ukraine invasion ● Flows cut by Kremlin to stoke crisis ● Storage levels now high

HENRY FOY — TOKYO
DAVID SHEPPARD — LONDON
ALICE HANCOCK — BRUSSELS

The G7 and EU will ban Russian gas imports on routes where Moscow has cut supplies, according to officials involved in the negotiations.

The decision is to be finalised by G7 leaders at a summit in Hiroshima this week. It will prevent the resumption of Russian pipeline-gas exports on routes to countries such as Poland and Germany, whose supplies Moscow cut off last year, triggering an energy crisis across Europe.

It will be the first time pipeline-gas trading has been blocked by western powers since the invasion of Ukraine.

Western powers want to ensure that Russia does not receive a boost to its energy revenues as they attempt to raise economic pressure 15 months after Moscow’s full-scale invasion of Ukraine.

One of the officials, all of whom spoke on condition of anonymity, said that the move was “to make sure that partners don’t change their mind in a hypothetical future”.

A draft G7 statement seen by the Financial Times said that the group of leading economies would further reduce their use of Russian energy sources, “including preventing the reopening of avenues previously shut down by Russia’s weaponisation of energy” at least until “there is a resolution of the conflict”.

> ‘Europe’s leaders are confident this plan will not scupper security of supply any time soon’

One European official from outside the G7 said that he suspected the move also partly aimed to give investors confidence to back liquefied natural gas infrastructure projects in Europe and North America, by making it less likely there could be a quick return of cheaper Russian gas.

While the measures are unlikely to affect any immediate gas flows, they underscore Brussels’ deep determination to make its rapid pivot away from decades of reliance on Russian energy permanent. Officials are confident that gas storage will reach capacity long before next winter. It is already some 60 per cent full, compared with roughly 30 per cent at the same time in 2022.

At the start of the war the EU avoided targeting pipeline flows, given its huge dependence on Moscow’s gas. Russia cut supplies anyway, sparking a surge in prices to more than 10 times their normal level. But in recent months prices have fallen substantially as Europe successfully reduced winter demand, increased its use of renewable energy and sourced alternative supplies.

Moscow’s share of European gas imports has fallen from more than 40 per cent to less than 10 per cent.

“With European gas storage unusually high for the time of year and wholesale prices inching back to what might just be considered their normal price range, you can understand why Europe’s leaders are confident this plan will not scupper security of supply any time soon,” said Tom Marzec-Manser at energy consultancy ICIS.

The embargo is being discussed by diplomats as part of the EU’s 11th sanctions package. The commission said that it would not comment on sanctions discussions or leaks.

One EU diplomat said that the proposal needed more clarification to show how the “status quo” would change.

Some of Russia’s main gas conduits to Europe — the Nord Stream 1 and 2 pipelines — were sabotaged last year and only one of their four strings remain.

But other pipelines such as the Yamal line to Poland remain intact.

Zelenskyy welcomes German aid page 2

Shell-backed Iraqi venture casts light on Iran’s reach

British supermajor Shell will soon be at odds with the west’s priorities in the Middle East. A Shell joint venture, Basrah Gas, will be a main consumer of energy produced by Iraq’s Rumaila power plant, which opens next month. The project was built by Iran’s Mapna, which is entitled to 78 per cent of its revenues. Mapna’s role reflects the extent that groups close to the Iranian regime have become embedded in the fabric of the Iraqi economy.

Iran to benefit ▸ PAGE 7

Banks press Brussels to prolong access to UK clearing houses for euro trades

LAURA NOONAN, GEORGE PARKER, AND PHILIP STAFFORD — LONDON
SAM FLEMING — BRUSSELS

The EU is coming under mounting pressure from Europe’s biggest derivatives houses to rethink radically its plans for wresting euro-denominated clearing from the City of London.

Clearing houses — which reduce market risk by standing between two parties in a trade — have been a key battleground since Brexit. Clearing is the only area where the EU granted London temporary “equivalence”, but the EU is intent on moving the clearing of strategically important European trades to the continent as soon as it is practical to do so.

The latest deadline, which the EU has vowed will be the final cut-off, is June 2025. But finance bosses have warned of the grave risk to financial stability posed by Brussels’ blueprint. Europe’s biggest derivatives houses, including BNP Paribas, Deutsche Bank and Société Générale, fear extra costs and less efficient clearing, while London’s LCH, which stands to lose business, has also pushed for a rethink.

“Officials are involved at the highest levels on both sides as this is a financial stability issue for the EU/eurozone and it is also an existential issue for the City,” said one person involved in the talks who asked not to be named as discussions were sensitive.

Lobbying led by the International Swaps and Derivatives Association is focused on the detail of the EU’s plans to force companies to route a yet-to-be determined percentage of certain euro-denominated trades through EU clearing houses. ISDA said that the proposals were so unworkable they could “have the undesired outcome of dissuading market participants from clearing transactions”.

Lobby group the European Banking Federation has warned that the plans “may lead to unforeseen and extensively adverse effects on the competitiveness, resilience and attractiveness of European financial markets and their financial institutions”.

A person involved in the industry discussions said: “We almost take it as a given that equivalence will be extended.” LCH declined to comment on any specific talks.

Deutsche Bank, BNP Paribas and Société Générale declined to comment.

The commission said that there were “no plans to amend this decision”. People familiar with the EU’s position said any changes would fall to the next commission, which takes over in late 2024.

World Markets

STOCK MARKETS

	May 12	Prev	%chg
S&P 500	4122.57	4130.62	-0.19
Nasdaq Composite	12288.17	12328.51	-0.33
Dow Jones Ind	33271.56	33309.51	-0.11
FTSEurofirst 300	1841.73	1834.03	0.42
Euro Stoxx 50	4314.95	4309.75	0.12
FTSE 100	7754.62	7730.58	0.31
FTSE All-Share	4224.06	4215.22	0.21
CAC 40	7414.85	7381.78	0.45
Xetra Dax	15913.82	15834.91	0.50
Nikkei	29388.30	29126.72	0.90
Hang Seng	19627.24	19743.79	-0.59
MSCI World $	2814.86	2822.60	-0.27
MSCI EM $	977.82	979.64	-0.19
MSCI ACWI $	650.70	652.43	-0.26
FT Wilshire 2500	5333.37	5345.27	-0.22
FT Wilshire 5000	41569.91	41666.73	-0.23

CURRENCIES

	May 12	May 5		May 12	May 5
$/€	1.086	1.101	€/$	0.921	0.909
$/£	1.247	1.262	£/$	0.802	0.793
£/€	0.871	0.872	€/£	1.148	1.146
¥/$	135.305	134.895	¥/€	146.975	148.473
¥/£	168.733	170.191	£ index	80.010	79.578
SFr/€	0.974	0.982	SFr/£	1.119	1.126

CRYPTO

	May 12	Prev	%chg
Bitcoin ($)	26354.54	26986.90	-2.34
Ethereum	1773.97	1795.30	-1.19

COMMODITIES

	May 12	May 5	%Week
Oil WTI $	70.35	71.07	-1.01
Oil Brent $	74.39	74.99	-0.80
Gold $	2015.95	2044.70	-1.41

GOVERNMENT BONDS

Yield (%)	May 12	May 5	Chg
US 2 yr	3.98	3.87	0.11
US 10 yr	3.46	3.40	0.06
US 30 yr	3.77	3.76	0.00
UK 2 yr	3.80	3.72	0.08
UK 10 yr	3.92	3.84	0.07
UK 30 yr	4.18	4.10	0.08
JPN 2 yr	-0.05	-0.05	-0.01
JPN 10 yr	0.38	0.39	0.00
JPN 30 yr	1.25	1.21	0.03
GER 2 yr	2.58	2.53	0.05
GER 10 yr	2.27	2.22	0.04
GER 30 yr	2.46	2.41	0.05

Prices are latest for edition
Data provided by Morningstar

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INTERNATIONAL

Latin America

Argentina battles growing economic crisis

New measures push rates to near 100% as inflation soars and peso plunges

MICHAEL STOTT

Argentina will announce today a new round of emergency government measures, including raising interest rates 600 basis points to 97 per cent, to try to stave off the country's worst economic crisis in two decades.

The Peronist government is desperate to avoid a big devaluation before elections in October. But the South American country is running out of foreign exchange reserves as Argentines abandon the fast-devaluing peso and embrace the US dollar. Fuelled by money printing to finance a large government deficit, Argentine inflation hit 109 per cent a year in April, the highest level since 1991. The economy ministry said the new measures would involve the central bank stepping up intervention in the foreign exchange market to try to slow the peso's fall.

Economy minister Sergio Massa is also trying to persuade the IMF to bring forward the disbursement of agreed loans and will travel to China on May 29 to seek greater use of the renminbi in foreign trade.

Last month, Argentina activated a currency swap with China allowing it to pay just over $1bn of its imports this month in renminbi.

The IMF has already shown leniency towards Argentina over the past year, allowing it greater leeway on targets to increase reserves and reduce money printing in an attempt to keep a $44bn loan programme on track. It is unlikely to want to bring forward disbursements in the months before a potentially pivotal election, which the government is likely to lose.

> Policies of heavy state intervention have failed to bring down inflation or boost the economy

Massa also plans to allow the import of food at a zero tariff to try to bring down inflation, a first in a country which is one of the world's largest grain exporters. The government will also lower interest rates on a state-run scheme for Argentines to buy locally made products on credit, part of an effort to boost national industry.

The latest package of measures does not represent a change of course, more an attempt to double down on policies of heavy state intervention that have failed to bring down inflation or boost the economy. It also entails risks: constant rises in interest rates are making the servicing of a huge pile of domestic debt increasingly expensive.

Economists have criticised the government's foreign exchange and price controls for creating huge distortions, deterring investment and depressing production. Many forecasters expect Argentina to enter recession this year, with Oxford Economics forecasting a 1.6 per cent fall in gross domestic product, the worst outlook for any major Latin American economy.

Amid a bitter squabble over policy between President Alberto Fernández and his powerful vice-president, Cristina Fernández de Kirchner, Massa is seen as one of the Peronist movement's few remaining options as a presidential candidate for October's elections.

But his plan to try to patch up the economy with temporary interventions to avoid painful austerity measures before the election has run into increasing difficulties, compounded by a severe drought which has hurt agricultural exports. Massa's chances as a candidate now depend on the success of his economic plan over the next few months.

Ukraine war

Zelenskyy welcomes Germany's extra €2.7bn in military aid

OLAF STORBECK — FRANKFURT
ROMAN OLEARCHYK — KYIV
AMY KAZMIN — ROME

President Volodymyr Zelenskyy praised Germany as a "true friend and reliable ally" after Berlin announced it would supply €2.7bn of additional military help for Ukraine and build a weapons factory in the country.

Zelenskyy's visit to Germany yesterday, his first since Russia's invasion of Ukraine in February 2022, marks a significant improvement in bilateral ties after Kyiv, at the onset of the war, accused Germany of dithering in its support for Ukraine.

Zelenskyy met German chancellor Olaf Scholz, President Frank-Walter Steinmeier and other officials a day after visiting Rome to meet Italian leaders and Pope Francis. Zelenskyy was also set to arrive in Paris yesterday for a surprise meeting with President Emmanuel Macron on the second such visit to France by the Ukrainian president, who also visited Paris in February for a meeting with Macron and Scholz.

Germany, which in January decided to send its Leopard 2 main battle tanks to Ukraine, announced on Saturday it would provide Kyiv with additional weapons worth €2.7bn. According to the German defence ministry, Berlin has provided €4.2bn of military aid since 2022.

German heavy weapons manufacturer Rheinmetall also announced on Saturday that it would build a factory to repair and service tanks in Ukraine in a joint venture with state-owned defence group Ukroboronprom.

The deliveries will include 18 self-propelled howitzers, four Iris-T SLM air-defence systems, 30 older Leopard 1 tanks and 20 Marder infantry fighting vehicles, as well as artillery munition.

In a post on Twitter, Zelenskyy called the deal the "largest military aid package since the beginning of the full-scale Russian invasion" and said German equipment was "saving Ukrainian lives and bringing us closer to victory".

Reflecting the improved ties, German defence minister Boris Pistorius said Berlin would provide help for "as long as its takes" to end the "Russian war against the Ukrainian people".

Rheinmetall chief executive Armin Papperger said on Saturday that the German arms-maker would "jointly produce selected Rheinmetall products in Ukraine" with Ukroboronprom.

Yesterday, Zelenskyy and Scholz travelled to the western German city of Aachen, where the Ukrainian president and his country's people were awarded a prize to honour achievements in fostering European unification.

Zelenskyy's overnight flight to Berlin came as Russian forces conducted air strikes on the western Ukrainian city of Ternopil that is home to electronic music duo Tvorchi, who were at the time representing Ukraine in the final of the Eurovision Song Contest, which was held in Liverpool, England.

Zelenskyy arrived in Berlin after making a trip to Rome, where he met Italian president Sergio Mattarella and Prime Minister Giorgia Meloni. The premier said Italy endorsed Kyiv's 10-point peace plan.

Finance ministers

Warning over gaps spotted in banking regulation

KANA INAGAKI — NIIGATA

G7 finance ministers have warned of "heightened uncertainty" surrounding the global economy and the need to address regulatory gaps in the banking system following turmoil in the financial sector.

"The global economy has shown resilience against multiple shocks," finance ministers of the world's most advanced economies said in their final communiqué after a three-day ministerial meeting in Japan on Saturday. "Nevertheless, we need to remain vigilant and stay agile and flexible in our macroeconomic policy amid heightened uncertainty about the global economic outlook."

The finance ministers also noted the need to fill "data, supervisory and regulatory gaps" in the banking system that had come to light following the March collapses of Silicon Valley Bank and Signature Bank and the failure of First Republic in recent weeks.

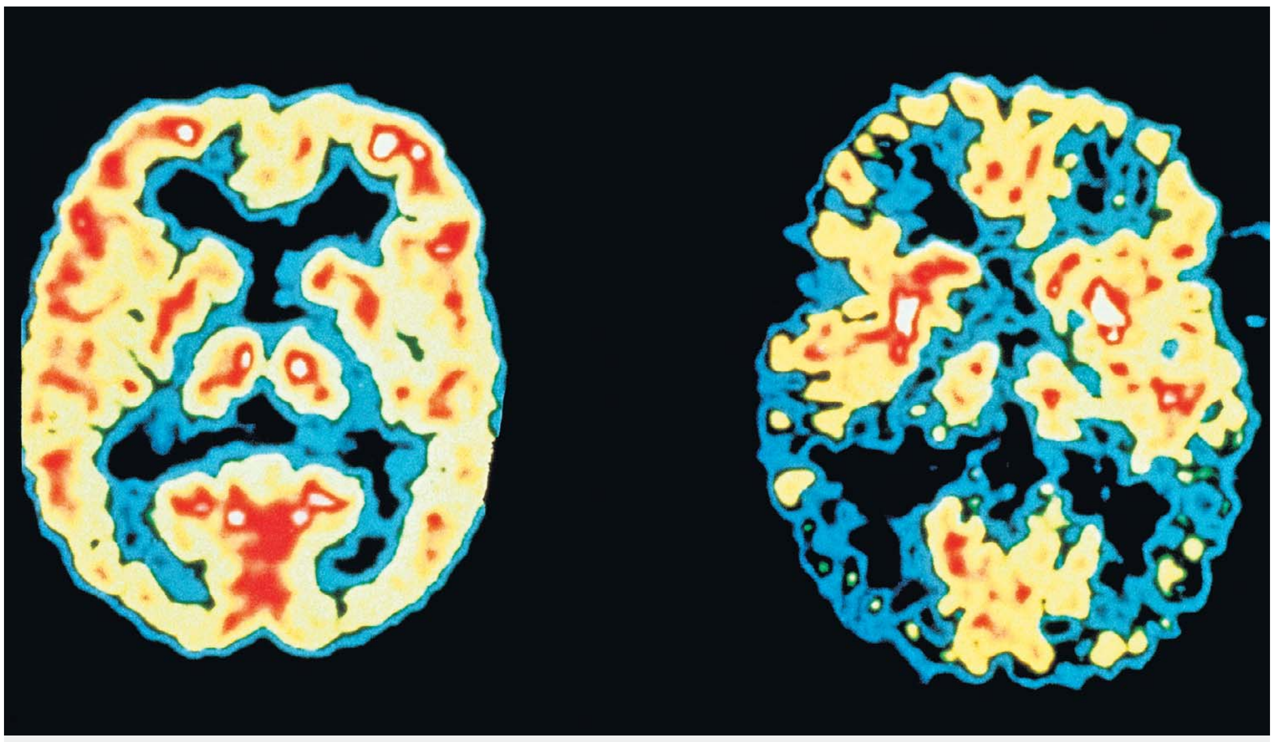
The US and its G7 partners have made removing sanctions loopholes and combating evasion their priority in recent months as, more than a year after Russia's full-scale invasion of Ukraine, the appetite for imposing restrictions on new parts of Russia's economy wanes.

Against that backdrop, the finance ministers also agreed to strengthen sharing of intelligence on possible sanctions dodging, and monitor the effectiveness of the price caps on Russian crude oil and petroleum products.

The G7 pledged to provide economic support of $44bn to Ukraine, enabling the IMF's approval of a four-year lending programme worth $15.6bn.

"It was a big achievement for us that the G7 was able to strengthen its unity rather than going in separate ways to address major international challenges," Shunichi Suzuki, Japan's finance minister, said.

According to people briefed on the talks, Brussels is also discussing restrictions on certain EU exports to countries that it suspects are re-exporting sanctioned products to Russia to prevent critical components from ending up on the Ukrainian battlefield.



Dementia fight

Japan urges G7 to pledge more for treatments

Grey matter: scans compare activity inside a normal brain, left, with an Alzheimer's patient's brain — Dr R Friedland//Science Photo Library

World leaders are expected to make their strongest pledges to tackle dementia for 10 years at the G7 summit in Hiroshima, as degenerative brain diseases impose a growing burden on the global economy and treatments for Alzheimer's begin to emerge.

Japan's government hosted a meeting of global dementia organisations in Nagasaki yesterday ahead of the summit from Friday. Tokyo hopes the conference will pave the way for an updated declaration, matching the scope of the commitments made at the G8's London summit in 2013.

The declaration is likely to include commitments such as increasing funding for research, improving access to care and increased international co-operation to address Alzheimer's disease and some of the 100 or so less common forms of dementia.

"The London summit made historic commitments to improve the lives of people affected by dementia and to speed up development of disease-modifying drugs," said Lenny Shallcross, executive director of the World Dementia Council, set up in 2013 to help governments meet those commitments.

"Today, governments need to address different challenges, now that we have the first disease-modifying drugs, biomarkers that could show who could benefit from them and citizens who will expect to be treated," he said.

The first two drugs shown in clinical trials to slow the progression of the disease; donanemab from Eli Lilly of the US and lecanemab developed by Japan's Eisai with US biotech Biogen, reduce the build-up of sticky amyloid proteins in the brains of those with Alzheimer's.

A survey of the drug's development pipeline in 2022 by Jeffrey Cummings and colleagues at the University of Nevada showed companies and academic labs globally are working on 143 medications with a wide variety of mechanisms besides targeting amyloid.

Japan takes a particular interest in dementia, as it has one of the world's oldest populations with about 30 per cent aged above 65.

"The summit in Japan will allow us to shine a spotlight on dementia, which has become the first or second leading cause of death in five of the seven G7 members," said Paola Barbarino, chief executive of Alzheimer's Disease International, a federation of dementia associations. She added that 60 per cent of healthcare practitioners "think incorrectly that dementia is not a disease but part of normal ageing".

George Vradenburg, founding chair of the Davos Alzheimer's Collaborative, an international foundation promoting innovation in dementia treatment, said the 2013 G8 summit had an initial galvanising effect on the field but the longer-term response was inadequate.

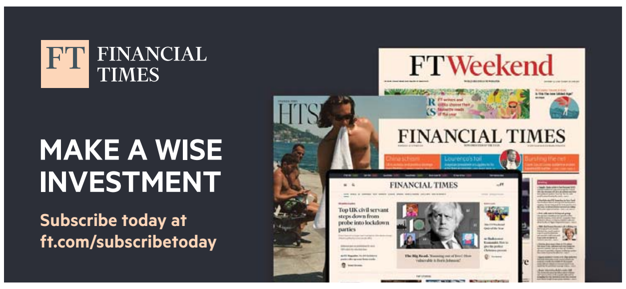
"I'm disappointed that governments didn't follow through with a more co-ordinated approach," he observed.

Only the US government carried through with a large and sustained increase in Alzheimer's research funding, rising tenfold from $400mn to $4bn a year over a decade, Vradenburg pointed out.

"Publicly funded research must be increased everywhere, including low and middle-income countries, to provide a base for the pharma and biotech industry to develop new treatments," he added.

Inclusion of dementia in Japan's G7 agenda "shows governments shining more of a spotlight on the issue", Shallcross said.

Another high-level conference has been organised by the government of the Netherlands for the autumn.
Clive Cookson



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Bespoke clauses

Shipping companies press for sanctions-proof China contracts

OLIVER TELLING AND KATE BEIOLEY
LONDON

Shipping groups are increasingly seeking break clauses in contracts with Chinese businesses that would make it easier for them to walk away from deals if western governments imposed sanctions on Beijing.

Senior lawyers at four maritime law firms said that vessel owners were regularly asking for bespoke clauses that would offer clearer protection against the impact of western sanctions when negotiating deals with Chinese counterparts such as shipbuilders, lenders and traders chartering freight services.

The impact of Russia's invasion of Ukraine has shaken shipowners and left groups far more exposed to sanctions, with the war putting pressure on them to keep track of their vessels amid greater scrutiny from regulators, banks and insurers.

"People didn't anticipate the eventual scale of the sanctions against Russia. And how quickly we ultimately got there," said Patrick Murphy, a shipping lawyer at Clyde & Co.

The situation has prompted companies to consider the likelihood of even more disruptive restrictions being imposed on China, amid fears over US-China tensions and Beijing's military assertiveness around Taiwan.

The shipping industry would be acutely exposed to a collapse in diplomatic relations with Beijing: billions of dollars' worth of goods are carried between China and the rest of the world very day, while China builds more ships annually than any other country.

In the past, industry contracts have generally included a provision allowing shipowners to walk away from a deal if fulfilling it would cause them to break the law. However, such clauses do not always cover sanctions, which are generally time-limited, meaning shipowners could struggle to renege on agreements permanently.

Lawyers said a desire for greater protection was driving demand for bespoke clauses, such as permitting shipowners to tear up deals when sanctions created the risk of continued trade becoming illegal.

"Sanctions tend to be introduced suddenly. That leaves commercial parties forced to choose; comply with the law and breach the contract, or perform the contract and break the law," said Daniel Martin, a shipping and sanctions specialist at law firm HFW.

"Sanctions clauses allow commercial parties to more easily manage these competing pressures. It they invoke the clause, they may be able to comply with the law without breaching the contract."

China Shipbuilding Industry Corporation and China State Shipbuilding Corporation, two of the world's largest, are both state owned.

However, despite some deals being struck, lawyers said that agreements had been tricky to achieve in China.

Shanghai: China builds more ships annually than any other country

"It is very, very difficult to get these clauses," said one London-based sanctions lawyer.

Shipbuilders were "often quasi-state-owned and the [Chinese] government won't like it".

Another lawyer said shipping groups were particularly concerned about being locked into long-term contracts with Chinese shipbuilders. Payments are generally made in stages while a vessel is built over several years, creating the risk of sanctions being imposed while a ship was being built and payments still having to be made.

Lawyers said some shipowners had made compromises to reach agreements, such as agreeing to pay more upfront or to provide compensation if a contract was torn up because of sanctions.

But one said that "a clause that allows [a shipowner] to walk away is not going to be readily accepted".

Chinese shipbuilders were constructing increasingly specialised ships, creating difficulties in transferring a vessel to another owner if the original buyer called off the deal, the lawyer added.

INTERNATIONAL

Soaring growth puts Greece on path to recovery

Rebound of Europe's one-time problem child follows decade of painful austerity

ELENI VARVITSIOTI — ATHENS
MARTIN ARNOLD — FRANKFURT
MARY MCDOUGALL — LONDON

More than a decade after bailouts and austerity measures pulled Greece from the brink of bankruptcy and a eurozone exit, the country has rebounded and is on the cusp of regaining its investment-grade rating.

S&P recently changed its outlook for Greece from stable to positive. A full upgrade would put the country at triple B minus, the rating agency's lowest investment grade rating.

Many, including Greece's central bank governor, expect the upgrade to come after next Sunday's elections should the new government continue with the reforms and maintain political stability.

The ruling conservative New Democracy party has a lead of 5 to 6 points in the polls ahead of Syriza, the radical left opposition party. But it is expected to struggle to form a government after the first round of voting, with Greeks set to return for a runoff in July.

Fokion Karavias, chief executive of Greek lender Eurobank, said the return to investment grade — to which not only the government's borrowing costs but also those of local lenders and corporates are inextricably linked — would signal "the greatest turnround in the European financial system".

He said: "There [had been] many voices asking for Greece to exit the eurozone. They were arguing that the country's debt would never be sustainable, that it will be impossible to achieve primary surpluses, and that its banking system will not be able to reduce its stockpile of bad loans. In the end, nothing is impossible."

After years as Europe's problem child, growth in Greece is now rocketing. The economy made one of the strongest recoveries from the pandemic, with gross domestic product up 8.4 per cent in 2021 and 5.9 per cent last year.

Figures from Eurostat, the EU's statistics office, show that Greece recorded a 0.1 per cent primary budget surplus in 2022. The amount of loans that are now non-performing on banks' balance sheets has fallen from more than 50 per cent in 2016 to close to 7 per cent.

Economists at rating agencies and investment banks such as Goldman Sachs expect Greece to continue to outperform the bloc this year and next.

It is a far cry from February 2012, when the country's credit rating came close to the lowest rating — selective default — following a debt crisis that threatened to tear the eurozone apart.

The lack of investment-grade status resulted in higher financing costs and meant that, for a time, the European Central Bank was prohibited from buying Greek debt as part of its multi-trillion-euro bond-buying programmes to stabilise the bloc's economy.

Reaching a point where rejoining the investment-grade club — a status bestowed by S&P on just 70 countries — would become a real possibility has been tough.

Painful austerity measures have left their mark on a country that now has one of the highest rates of relative poverty in the EU. Up until a few weeks ago, when it was raised from €832 to €910 per month, the minimum wage was lower than it was 12 years ago.

After shrinking by almost a quarter from peak to nadir, Greece's output remains substantially below pre-crisis levels. Giorgos Chouliarakis, economic adviser to the Greek central bank governor, believes a return to peak "still needs another decade", while only "a serious multiyear investment plan in human capital, key infrastructure and health services" will boost wages.

Reforms have not only stabilised an economy in freefall but also led to some real improvements. Chief among them is trade: between 2010 and 2021, the country's goods exports soared 90 per cent, compared with 42 per cent in the euro area as a whole.

"Greece's biggest success story over the past decade is exports," said Dimitris Malliaropulos, chief economist of the Greek central bank. But a big factor was "outright" cuts in wages, he added. "The price of this improvement was high."

The pain is now beginning to pay off. After surging to 206 per cent during the pandemic, Greek government debt as a proportion of GDP was down to 171 per cent last year, its lowest level since 2012 and one of the most rapid rates of debt reduction in the world. It is expected to keep falling in 2023, aided by high inflation.

Covid helped to raise revenues by forcing people to use easier-to-trace electronic payments as shops shuttered. "Economic activity that was in the dark has now been revealed and taxed," said Malliaropulos.

Greece has also benefited from a surge in foreign direct investment, which rose 50 per cent last year to its highest level since records began in 2002. The EU's post-pandemic recovery fund is set to provide €30.5bn of grants and loans to Greece by 2026, equal to 18 per cent of current GDP. Tourism — the Greek economy's largest sector, accounting for about one-fifth of GDP — last year rebounded to reach 97 per cent of pre-pandemic levels.

Foreigners not only have their holidays in the country but are also heavily investing in real estate. Property sales to overseas buyers were almost four times higher last year than in 2007, reaching almost €2bn.

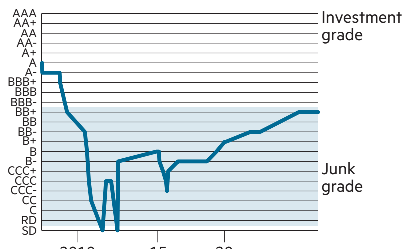
Construction, the hardest-hit sector during the financial crisis, is also booming. Haris Kokosalakis, whose construction business collapsed in 2012, said demand from overseas buyers had given him a slight "hope" of a sustainable recovery.

"If it weren't for our foreign clients, I would be very pessimistic," he said. "I still fear we are back in 2007, about to face another crash."

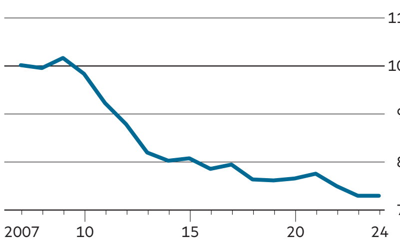
> 'There [had been] many voices asking for Greece to exit the eurozone. In the end, nothing is impossible'

Back on top: visitors at the Areios Pagos hill opposite the Acropolis in Athens. Tourism rebounded last year to reach 97 per cent of pre-Covid levels
Angelos Tzortzinis/AFP/Getty Images

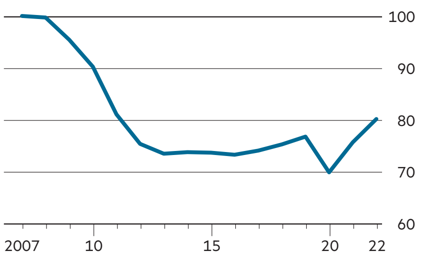
Greece is on the cusp of regaining its investment-grade rating
S&P credit rating



More than a decade on from Greece's default, workers remain far worse off
Average annual wages at constant prices, index (2007=100)



The economy remains much smaller than before the country's financial crisis
Greek GDP at current prices, index (2007=100)



Sources: S&P; OECD; Refinitiv

Deadline pressure

Outline of possible US debt deal emerges

Talks between White House and Republicans step up in bid to avert national default

JAMES POLITI AND LAUREN FEDOR
WASHINGTON

The shape of a possible US debt ceiling agreement between the White House and Republicans in Congress is emerging as the sides intensify talks to try to avoid an unprecedented national default.

People familiar with the matter said that the issues involved had narrowed, as senior Biden administration officials and aides to Republican Speaker of the House Kevin McCarthy prepared to hold discussions throughout yesterday.

At the heart of any deal would be a pact to limit domestic spending. Republicans are demanding deep cuts to many government programmes over 10 years, while the White House wants to see more modest curbs over two years, one person familiar with the talks said.

"There's [a] real discussion about some changes we all could make," President Joe Biden said on Saturday.

"We're not there yet." He added: "We'll know more in the next two days."

Biden has signalled he is open to applying savings from unspent Covid relief funds to any agreement, which could help narrow the differences between the sides.

Another element of a possible deal is legislation to speed up the permit process for big investment projects. That legislation has been championed by West Virginia senator Joe Manchin, a centrist Democrat, and is backed by the White House and supported in different forms by Republicans.

The White House has rejected Republican calls for the repeal of clean energy tax credits that were part of the Inflation Reduction Act, Biden's signature legislation last year, and their calls to scrap student debt relief measures implemented by the president.

Democrats are also opposed to a Republican demand for work requirements to be applied to anti-poverty and social safety net programmes in areas such as healthcare and nutrition, which could be a big sticking point, the person familiar with the talks said.

The negotiators are in a toxic political climate averse to compromise and on a short deadline: the US could default on its debt as early as next month if no deal is reached. Any agreement is unlikely to be concluded before Biden's attendance at the G7 summit in Hiroshima this week, but it could plausibly be in place after that, the person added.

On Friday, Karine Jean-Pierre, the White House press secretary, expressed some optimism. "It's been productive. It's been continuing," she said. "The conversations are going in the right direction."

Yet Republicans have been more sceptical. "Republicans are focused on the tenets of the only bill to pass a body of Congress that raises the debt limit, avoids default and enacts spending reforms," one Republican aide said, referring to legislation passed by the House last month that raised the debt limit but tied it to deep budget cuts.

"It doesn't feel like any of [the issues] are impossible to resolve, and that really puts you on a path to get a deal," said Neil Bradley, chief policy officer at the US Chamber of Commerce, the largest business lobby group.

For Democrats, the priority is to make sure they do not sacrifice any of their big policy accomplishments of the past two years, or are forced to accept a level of austerity that would stunt the economy.

See Opinion

Election

Thailand opposition party leads rivals with military ties

ELI MEIXLER — HONG KONG

Thailand's pro-democracy opposition has taken the lead in early polling results as voters delivered a rebuke to the military in a contest that could herald the country's first transfer of power for a decade.

Yesterday's election represents the strongest chance for Thai voters to reclaim control from a military-aligned government and arrest a cycle of military coups, violent crackdowns and political turmoil that has plagued the country and seen its economic growth lag behind regional neighbours.

The Pheu Thai party, Thailand's largest opposition group, was in the lead with about 23 per cent late yesterday, with more than half of the votes counted, according to Thailand's Election Commission. The party is led by Paetongtarn Shinawatra, 36, who only formally entered politics last year. She is the youngest daughter of Thaksin Shinawatra, the billionaire telecoms magnate and populist former prime minister whose elected government was overthrown in a military coup in 2006.

Her party was closely trailed by Move Forward with about 21.5 per cent of the votes, reflecting early signs of a backlash against Thailand's deeply conservative royalist-military establishment. The progressive party had surged in pre-election polling on enthusiasm from urban and young voters following protests in 2020. Pita Limjaroenrat, Move Forward's Harvard and MIT-educated leader, announced late yesterday that he expected his party to begin coalition talks with Pheu Thai.

Move Forward's supporters "have grown up in a time of political polarisation marked by protests, coups and crackdowns", said Napon Jatusripitak, a research fellow at the Iseas-Yusof Ishak Institute in Singapore, saying the result "will give us a glimpse into whether there is enough appetite for change".

Military-aligned parties trailed in early returns. The United Thai Nation party, a vehicle for incumbent prime minister Prayuth Chan-ocha, garnered only about 8 per cent of the vote. The ruling Palang Pracharath party, which is led by Prayuth's deputy and longtime mentor Prawit Wongsuwan following a schism in the government, had 10 per cent.

Prayuth, a former military chief who seized power in 2014 by deposing Thaksin's sister, Yingluck Shinawatra, had faced criticism at home and by some allies for repressing civil liberties and crushing the 2020 protests, which sought to curb the privileges of the monarchy, Thailand's most powerful institution. But the military maintains a significant advantage under Thailand's 2017 constitution, which allows a 250-member junta-appointed senate to vote alongside the 500-seat elected lower house on a prime minister.

One possible kingmaker is the regional populist Bhumjaithai party, which was third in early returns. The party, led by health minister Anutin Charnvirakul, who drove the successful campaign last year for marijuana decriminalisation, also tipped the scales following disputed polls in 2019, when it backed Prayuth.

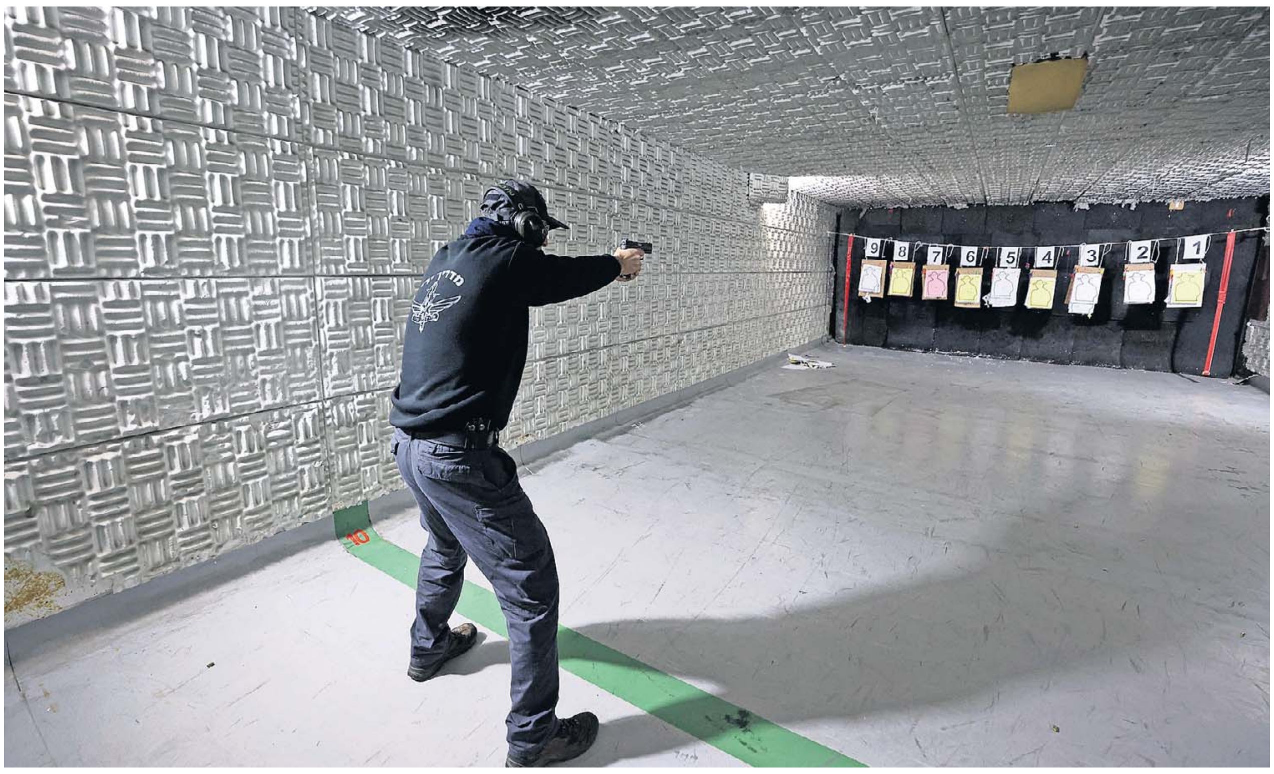
The opposition is hoping an overwhelming margin will press the Senate to co-operate with the result, but it faces a battle to form a government, and final results may not be available for weeks.

Middle East. Security

Israelis wrangle over easing gun controls

Supporters say move would plug security gap but critics fear the fuelling of violence

JAMES SHOTTER — GUSH ETZION



Taking aim: a man fires a pistol at an indoor shooting range in Katzrin, Golan Heights
Jalaa Marey/AFP/Getty Images

At the Caliber 3 shooting range in Gush Etzion, a cluster of Jewish settlements in the occupied West Bank, business is booming. "I've seen a big uptick," said Sharon Gat, a colonel in the Israeli military who founded the business in 2007.

"Gun sales in the past two months have grown by 100 per cent, and the number of people coming to train [has also risen]. It's always like that when the violence is up."

For some at the range, obtaining a gun is a reaction to the wave of bloodshed that has engulfed Israel and the occupied West Bank for the past year. The surge in violence has become the worst for a decade, with Israeli forces killing more than 250 Palestinians in a series of near-nightly raids in response to a spate of Palestinian attacks that have killed more than 40 Israelis.

But broader gun ownership is also a goal championed by Israel's national security minister, Itamar Ben-Gvir, who argues it would make the public safer. Critics dispute this, saying that more guns will fuel violence rather than deter it and exacerbate already soaring tensions between Israelis and Palestinians.

Unlike in the US, there is no general right to bear arms in Israel. But Israelis can typically get a licence for a firearm and 50 bullets if they meet certain criteria, such as living in an area exposed to heightened security threats, passing a medical test, having no criminal record and completing weapons training. About 140,000 Israelis hold gun licences.

After a Palestinian gunman shot dead seven Israelis in the Neve Ya'akov settlement in January, Ben-Gvir — a settler previously convicted of inciting racism and supporting a terrorist organisation — pledged to loosen the rules and speed up licensing.

Boosting gun ownership is one of a number of measures demanded by Ben-Gvir in response to the spiralling tension, which include establishing a national guard and imposing the death penalty for terror killings. The violence poses a challenge to Israeli prime minister Benjamin Netanyahu's hardline government, which has accused its predecessors of being soft on security.

Advocates argue that arming more civilians would plug gaps the security forces cannot fill, making it possible for attacks to be stopped more quickly and deterring some assailants.

Among those who have recently applied for a licence is Mike Epstein, a 32-year-old from Tekoa, a settlement near Hebron. He decided to do so because his family was growing and he had heard "first-hand stories of people who were in incidents".

"[It's] something I hope to never, ever have to use except on the range," Epstein said, as he picked up his new handgun at Caliber 3. "But . . . I'd like to have it on me in case of an emergency."

However, critics argue that broadening gun ownership will do little to boost security and dismiss Ben-Gvir's plans as a political gimmick. "This is a way for him to get votes very easily without struggling with the limits of [his] power in the hierarchy of the government," said Eitay Mack, a human rights lawyer. "But I think he's pushing Israel to a place that is going to be very, very dangerous for everybody."

Noa Sattath, head of the Association for Civil Rights in Israel, said attackers were unlikely to be deterred, as their chances of being killed were already high. Only 5 per cent of incidents classified by Israel as terrorist attacks between 2018 and 2020 were thwarted by armed civilians or security guards, she added, citing data from the ministry of internal security.

Others argue that letting more civilians own weapons would be counterproductive. While gun violence remains low, it has risen since the last loosening of licensing rules in 2018, with the number of people killed with firearms in criminal circumstances rising from 84 in 2019 to 117 in 2021, according to data collated by Gun Free Kitchen Tables (GFKT), an alliance that backs stricter gun controls.

Rela Mazali, co-founder of GFKT, said if licensing rules were eased again, some weapons would end up being used in organised crime. Others would be used in murders and domestic violence — in particular against women — and would increase deaths by suicide.

> 'Gun sales in the past two months have grown by 100%, and the number of people coming to train [has also risen]'

The prospect of wider gun ownership has alarmed Palestinian citizens of Israel, who fear the weapons will be turned against them. "It's already terrifying living here as a Palestinian. You can't make any mistakes," said Diana Buttu, a Palestinian analyst and former negotiator. "At any time the police can view us as a threat and gun us down. And now [Ben-Gvir] wants to extend this to private citizens."

Sattath said she was also concerned that along with Ben-Gvir's other ambitions — such as setting up a national guard and involving Israel's Shin Bet internal security service in policing Arab society — wider gun ownership could exacerbate tension between Israel's Jewish majority and its minority groups, such as Palestinians and the Bedouin. "In this atmosphere of incitement and the stoking of fear and violence, we worry that these guns would not be used for security," she said.

"Stoking fears and talking about guns may alleviate some of the [security concerns in society]. But in reality, increasing gun ownership will lead to more deaths and more violence."

Contracts & Tenders

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CORRIGENDUM-I
GLOBAL INVITATION (THROUGH E-BIDDING ONLY)

FOR SELECTION OF TRANSMISSION SERVICE PROVIDER THROUGH TARIFF BASED COMPETITIVE BIDDING (TBCB) PROCESS ON BUILD, OWN, OPERATE AND TRANSFER (BOOT) BASIS FOR "TRANSMISSION SYSTEM FOR EVACUATION OF POWER FROM REZ IN RAJASTHAN (20GW) UNDER PHASE-III PART B1"

PFC Consulting Limited, a wholly owned subsidiary of Power Finance Corporation Limited (A Government of India Undertaking), has earlier invited proposals for setting up of above transmission project on Build, Own, Operate and Transfer (BOOT) basis through single stage two envelope process of "Request for Proposal" (RFP) w.e.f. 04.02.2022.Interested bidders are invited to this Corrigendum-I being issued as per amended scope of work and Qualification Requirements.

Bidders who had purchased the RFP documents as per NIT notification dated 04.02.2022 need not to re-purchase the RFP documents. The Amendment V w.r.t. Corrigendum-I shall be available to the website **https://www.mstcecommerce.com** and **https://www.pfcclindia.com**.

The new interested bidders may obtain the RFP documents on all working days between 10:30 hrs (IST) and 16:00 hrs (IST) **upto one working day prior to bid submission for the project** on payment of a non-refundable fee of Rs. 5,00,000/- or USD 7,000 plus applicable GST @18%, from 9th Floor, Wing – A, Statesman House, Connaught Place, New Delhi-110001, Tel.: 91-11-23443996; Fax: 91-11-23443990; e-mail: **pfccl.itp@pfcindia.com.** The RFP documents can also be downloaded from **https://www.mstcecommerce.com** and **https://www.pfcclindia.com**, however, in such case, interested party can submit Response to RFP only on submission of non-refundable fee of Rs. 5,00,000/- or USD 7,000 plus applicable GST @18% separately. Bidders should regularly visit website to keep themselves updated regarding clarifications/ amendments/ time extensions etc., if any.

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An Initiative of: Ministry of Power, Government of India
Initiative Partner: Central Electricity Authority

Rocket attacks

Palestinian Islamic Jihad agrees Gaza Strip ceasefire

JAMES SHOTTER — JERUSALEM

Israel and Palestinian Islamic Jihad officials in the Gaza Strip said they had reached a deal to end the worst bout of cross-border fighting since 2021.

Mohammed al-Hindi, a senior member of Islamic Jihad's leadership, told the Al Kahera Wal Nas channel that the deal, brokered by Egyptian officials, would take effect at 10pm local time on Saturday, raising the prospect of an end to the five-day flare-up.

In the minutes after the deadline, sirens warning of incoming missiles went off in areas around the Gaza Strip, and Israel subsequently said its aircraft had struck two concealed rocket launchers in Gaza, leaving the deal's durability in question.

By yesterday morning, however, the truce appeared to be holding. Israel reopened the main border crossing to Gaza, and gradually eased restrictions on Israelis living in the south of the country, which was most affected by the rocket fire.

Tzachi Hanegbi, head of Israel's national security council, said that Israel's acceptance of the truce meant that "quiet will be met with quiet", and that if Israel were attacked or threatened, "it will continue to do everything that it needs to in order to defend itself".

The latest round of violence erupted on Tuesday when Israel killed 15 people in air strikes targeting three senior members of Islamic Jihad that it said had been involved in rocket fire from the strip a week earlier. In the days since, a total of 33 people have been killed in the Gaza Strip, according to the local health ministry.

In Israel, two people have been killed by rocket fire, including a Palestinian with a permit to work in Israel, and a woman who died when a rocket hit an apartment block in the city of Rehovot.

Karnataka

BJP election loss in south hits Modi hopes for national poll

JOHN REED — NEW DELHI

The ruling Bharatiya Janata party has lost control of a crucial southern state to the Indian National Congress in a closely watched election, dealing a rare political setback to Prime Minister Narendra Modi a year before a national poll.

Congress won in 135 of the 224 seats that were up for grabs in the Karnataka state assembly, the Election Commission of India reported. The BJP won in 66 seats, putting Congress in position to form a government without a coalition partner.

Newly elected Congress lawmakers in the state were due to meet yesterday to begin talks on forming a government.

Karnataka is one of the country's wealthiest states and home to the technology hub of Bengaluru. The defeat means the BJP will lose the only state it governs in the country's south. Modi campaigned for a week ahead of Wednesday's vote. Both parties' candidates raised issues of religion, caste, the economy and corruption.

"We have been not able to make the mark, in spite of a lot of efforts [that] have been put up by everybody, from our prime minister to the workers," said Basavaraj Bommai, Karnataka's BJP chief minister, as he conceded defeat in remarks broadcast on Saturday.

The results will be a big boost for Congress, which was the dominant political party for decades before it was crushed by the BJP in national elections in both 2014 and 2019.

Ahead of the polls, the BJP state government scrapped a 4 per cent reservation under job quotas for minority Muslims, and reallocated it to two other disadvantaged groups in a move seen as appealing to its Hindu nationalist base. Muslims make up about 13 per cent of Karnataka's population.

Additional reporting by Jyotsna Singh

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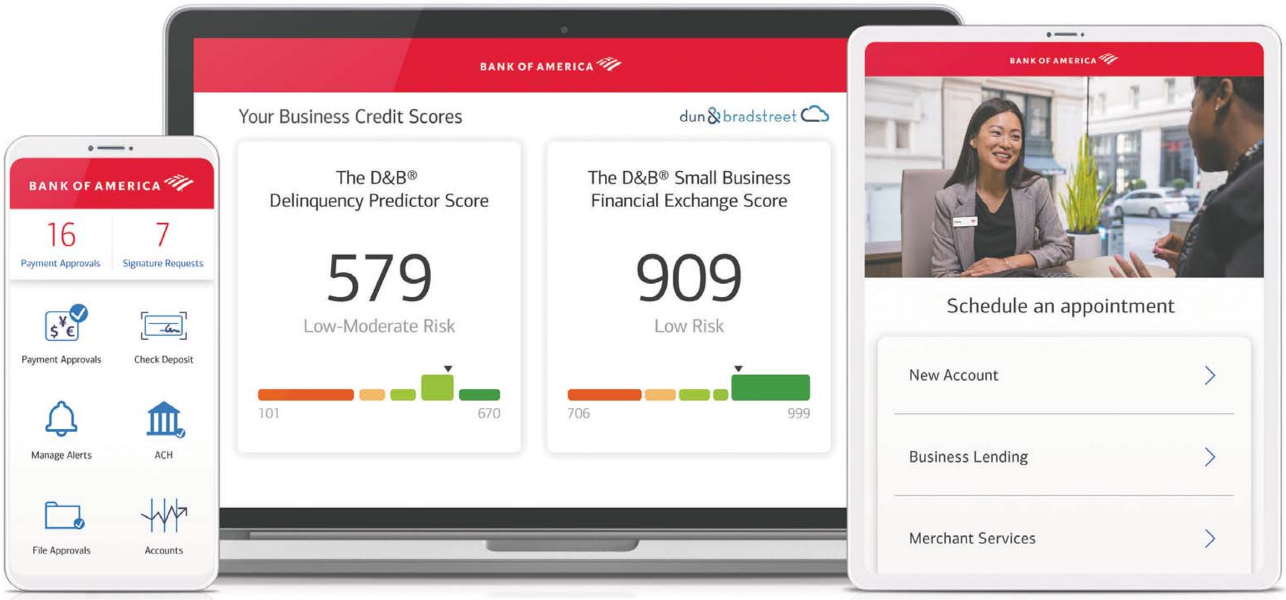

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Let's spell it out Resistance to the mania for acronyms is pointless, so you might as well embrace the trend ➔ PILITA CLARK

Companies & Markets

Mastercard defends fees amid probe by UK regulator

- Chief says system offers 'good value'
- Merchants campaign to reduce costs

SIDDHARTH VENKATARAMAKRISHNAN
LONDON

Mastercard's European president has defended the fees it charges merchants as the card network and rival Visa face regulatory investigations in the UK, dissent from retailers and threats from Big Tech's attempt to muscle in on their territory.

"We believe interchange [fees paid to banks for payments on their network] is the right mechanism for everybody, sharing the costs and benefits of the payment system," Mark Barnett told the Financial Times. "We think it represents incredibly good value."

The UK's Payment Systems Regulator is reviewing cross-border interchange fees, levied by card networks on behalf of banks for every debit or credit card payment that uses their networks. Together, Mastercard and Visa accounted for 99 per cent of these payments in the UK in 2021.

> 'We believe [fees paid to banks for payments on their network] is the right mechanism for everybody'

EU regulation introduced in 2015 capped interchange fees at 0.2 per cent of the transaction value for debit cards and 0.3 per cent for credit cards.

But following the Brexit transition period, both networks raised the interchange fees for online payments between the EU and the UK to 1.15 per cent for debit card transactions and 1.5 per cent on credit cards, citing fraud and growing competition.

Barnett said the caps put in place in Europe in 2015 had helped to double the number of merchants who accepted Mastercard to 100mn over the past eight years by lowering the costs.

The PSR is also studying scheme fees, the charges that go directly to the card networks rather than to the banks.

Barnett said Mastercard was fully co-operating with both investigations and had provided large amounts of data to the PSR.

He said the scheme fees paid to Mastercard were "minuscule".

Based on a 2021 report from Boston Consulting Group, Mastercard estimates that scheme fees across Europe were equivalent to 6p on a £50 transaction, although it said the cost would now be lower since the card network withdrew from Russia.

The card networks are also under pressure from merchants to reduce costs. Trade bodies including the British Retail Consortium and the Federation of Small Businesses launched campaign group Axe the Card Tax last year, calling for the PSR to reduce card fees.

In November 2021, Amazon said it would stop accepting UK-issued Visa credit cards as a "result of high costs", with a person familiar with Amazon's position citing interchange fees as one of the sticking points. Amazon reversed course in January last year, saying that it was working with Visa to reach a solution.

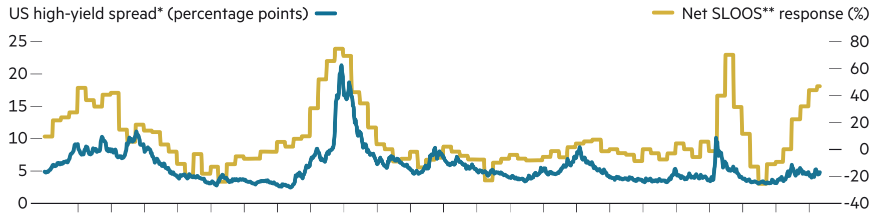
The battle came as the relationship between Big Tech companies and payment firms has become increasingly complex, with the US west coast giants expanding their reach into financial services.

Apple launched a pilot of its buy now, pay later service in the US in March, using Mastercard's network, while Amazon offers an instalments payments service through Barclays in the UK.

Credit crunch Nervous investors braced for imminent sell-off of US high-yield bonds

Graeme Sloan/Bloomberg

US banks say they are tightening standards for lending to small businesses which has historically been followed by a widening US high-yield bond spread



* ICE BofA US High Yield Index, option-adjusted spread ** Senior Loan Officer Opinion Survey on Bank Lending Practices
Sources: Fidelity; Bloomberg; Haver Analytics

MARY MCDOUGALL — LONDON

Investors are growing nervous about a sharp fall in the prices of risky corporate bonds as credit conditions for US businesses and households grow increasingly tighter.

The Federal Reserve's quarterly Senior Loan Officer Opinion Survey last week showed 46 per cent of US banks planned to raise their lending standards because of worries about loan losses and deposit flight.

In the past, tighter lending standards have led to the spread, or gap, between yields for riskier corporate bonds and ultra-safe government bonds widening, because credit becomes riskier to own.

But while lending has not evaporated as feared following the collapse of Silicon Valley Bank in March, the spread between higher-yield bonds and Treasuries has stayed relatively tight, leaving investors speculating that a correction is coming.

"In terms of why corporate bond spreads have not yet moved, I think it is simply because lending standards are a lead indicator on the real economy," said Mike Riddell, a bond fund manager at Allianz Global Investors.

"We think that global risk premia will move sharply higher once the exceptionally tight lending standards begin to have a major impact on global growth, which is due to happen imminently."

Ultimately, he said, it took at least a year for a change in interest rates to have the full impact on the economy. The Fed started raising rates in March last year.

Investors' worries over the health of the US banking system are still rippling through markets, more than two months since the failure of SVB.

PacWest shares lost more than a fifth in value last week after the bank announced it lost almost a tenth of its deposits in the first week of May.

The KBW regional banks index, which tracks midsized and local US banks, has shed 35 per cent since the start of the year.

"The failures of several banks in recent months have been relatively well contained, and a 2008-style crisis looks much less likely than it did when Silicon Valley Bank collapsed in March," said Eugene Philalithis, head of multi-asset investments at Fidelity. "However, the US banking sector remains in a slow-motion crunch."

Fidelity believes high-yield US bonds look particularly vulnerable to tighter lending. Spreads are at levels consistent with a "more benign outlook than reality suggests", according to Philalithis, who is buying highly rated sovereign bonds and avoiding risky credit.

Howard Cunningham, fixed income portfolio manager at Newton Investment Management, has said he has also "sharply reduced" exposure to high-yield bonds because "where lending standards go junk bond yields will follow".

In its financial stability report last week, the Fed cited the chance of a credit crunch among the biggest current risks to the financial system but not its most likely scenario.

Novavax chief urges nations to honour Covid deals

JAMIE SMYTH — NEW YORK

The new chief executive of Novavax has urged governments to honour Covid-19 vaccine purchase commitments as the US biotech battles to stay afloat amid a collapse in demand for jabs.

John Jacobs told the Financial Times there was no guarantee governments would deliver on all their existing commitments with the company, which include $2.1bn in advanced purchase agreements signed with the US biotech group stretching into 2025.

"We had to invest billions . . . to deliver a vaccine that helped to stem the tide of a global pandemic that was killing millions of people," said Jacobs, who replaced Stan Erck as Novavax's chief executive in January. "And then to all of a sudden say 'well you spent all your money, you committed to protect our citizens. Now we don't think we need it as much. Sorry, you're out of luck.' That's probably not good for long-term relationships and that type of thing and to benefit public health," he said.

Novavax is one of a handful of vaccine makers, along with BioNTech/Pfizer and Moderna, which are approved to supply Covid jabs in the US, EU and other western countries. All providers are facing steep falls in sales owing to a supply glut that has left billions of vaccine doses unused. This has prompted governments to renegotiate contracts with manufacturers, a move that analysts warn could pile further pressure on cash-strapped Novavax.

Novavax said in December it would repay the UK government $112.5mn following its decision not to exercise an option in its contract to buy additional vaccine doses. The company also faces a $700mn arbitration process linked to its cancellation of a vaccine contract with Gavi, an international body providing vaccines to poor countries.

Novavax's market capitalisation soared above $20bn when it developed Nuvaxovid, a Covid jab made using a traditional protein-based vaccine process rather than the messenger RNA technology used by BioNTech/Pfizer and Moderna. But the company's valuation has since crashed below $1bn, because of delays in launching the vaccine, competition from rivals and weak demand for Covid jabs. Jacobs said Novavax expected to deliver on the $800mn advanced purchase agreements with the EU, Australia, Canada and New Zealand that are due this year.

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GLOBAL INVITATION (THROUGH E-BIDDING ONLY)
FOR SELECTION OF TRANSMISSION SERVICE PROVIDER ON BUILD, OWN, OPERATE AND TRANSFER (BOOT) BASIS FOR INTER-STATE TRANSMISSION PROJECTS

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Interested bidders may refer to the RFP notification and RFP documents available on the website https://www.mstcecommerce.com and https://www.pfcclindia.com.

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S. No	Name of Transmission Scheme	Last Date for seeking clarifications (dd/mm/yyyy)	Last Date for submission of response to RFP (dd/mm/yyyy)	Date of opening of Response to RFP (dd/mm/yyyy)
1.	**Transmission Scheme for integration of Renewable Energy Zone (Phase-II) in Koppal-II (Phase-A & B) and Gadag-II (Phase- A) in Karnataka.**	31/05/2023	17/07/2023 up to 15:00 hrs (IST)	17/07/2023 up to 15:30 hrs (IST)
2.	**Transmission system for evacuation of additional 7 GW of RE power from Khavda RE park under Phase III Part A**	31/05/2023	18/07/2023 up to 15:00 hrs (IST)	18/07/2023 up to 15:30 hrs (IST)

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Profile. Linda Yaccarino

Advertising veteran enters wild world of Twitter

> New chief faces challenge of mending relationships with brands that curbed spending

ANNA NICOLAOU — NEW YORK
HANNAH MURPHY — SAN FRANCISCO

Like most things with Elon Musk, it started with a tweet. "Excited to announce that I've hired a new CEO for X/Twitter," he wrote late on Thursday afternoon, setting off a maelstrom of speculation across media and tech circles about who the billionaire had chosen to steer the social media group.

Rumours centred on Linda Yaccarino, a well-regarded advertising veteran who has spent the past decade at Comcast's NBCUniversal. A spokesperson said on Thursday that Yaccarino was unavailable because of "back-to-back rehearsals" for the group's annual pitch to advertisers. But by Friday morning, she was officially exiting the company, effective immediately.

It was a fittingly chaotic start for Musk's replacement as Twitter chief executive. Yaccarino will leave behind the old-school hallways of Madison Avenue for a start-up that has been managed erratically by the tech entrepreneur since he acquired it for $44bn last year.

Yaccarino, 60, is a towering figure in advertising and has deep relationships with marketers and advertising agencies, as well as ties to the traditional fixtures of global business such as the World Economic Forum, where she is an executive chair.

Twitter's investors hope she can be a steady hand to mend Musk's testy relationship with advertisers, the main source of the company's revenues.

The appointment comes as Musk has struggled to wrestle the platform's finances under control, carrying out a dramatic restructuring and cost-cutting push that critics argue has caused internal chaos and technical issues for users.

Upon his acquisition of Twitter in October, Musk, a self-declared "free speech absolutist", initially attempted to woo marketers, promising that the platform would not become a "hellscape" despite his plans to relax content moderation.

Nevertheless, many top advertising agencies and brands chose to pause spending on the platform, hitting Twitter's revenues by about 50 per cent and prompting Musk to lash out and threaten to "name and shame" those involved. In some cases, he personally called chief executives of some brands that have curbed advertising in order to berate them.

"If she shows up and basically could tell Musk what needs to happen, and he actually leaves her alone to do that, almost all the [advertising] money will come back, and then some", said Brian Wieser, a former WPP executive and longtime media analyst. "That's a testament to how well regarded she is in the industry, and how deep her relationships are."

Advertising insiders say that Yaccarino's biggest obstacle to restoring Twitter's business may be Musk himself, who is known for his unorthodox management style and turning on those who challenge him.

Yaccarino has risen up the ranks of large publicly traded television companies over the past three decades, managing a team of thousands as head of advertising for NBCUniversal, where she oversaw more than $10bn in annual revenue. Her presence will inject professionalism at Twitter, where Musk has cut staff by almost 90 per cent and set the company's automatic email reply for journalist inquiries to a poop emoji.

Advocates say she is a consummate relationship builder who could help turn round the company's advertising business, which has long lagged its larger peers such as Meta in terms of revenue, resources and sophistication.

"There's no one that won't take a meeting with Linda, no question," said one veteran advertising executive, adding that she had been an "ardent supporter of broadcast and cable advertising" but was "somewhat dismissive of the value of social media for building brands" in the past.

While they appear to make for an odd couple, Yaccarino and Musk seem to share political stances. "She doesn't necessarily fit the profile of left-leaning executive types," said the veteran advertising executive. "If I was placing her anywhere on the spectrum, it would be as a [Ronald] Reagan Republican." Another media executive said she was known to be a fan of former US president Donald Trump.

Linda Yaccarino: her presence will inject professionalism at Twitter

She and Musk also share a propensity for showmanship. Yaccarino, a fixture at the industry's glitzy events, has said that if she weren't working in advertising, she would want to run for mayor of New York City.

When news broke of her hiring, Yaccarino's ties to the WEF provoked a backlash from more conspiracy-minded Musk fans, many of whom share distrust of international political organisations. Musk, who in January described the WEF as "increasingly becoming an unelected world government", addressed fears that Yaccarino's connections would harm his free speech agenda, writing: "The commitment to open source transparency and accepting a wide range of viewpoints remains unchanged."

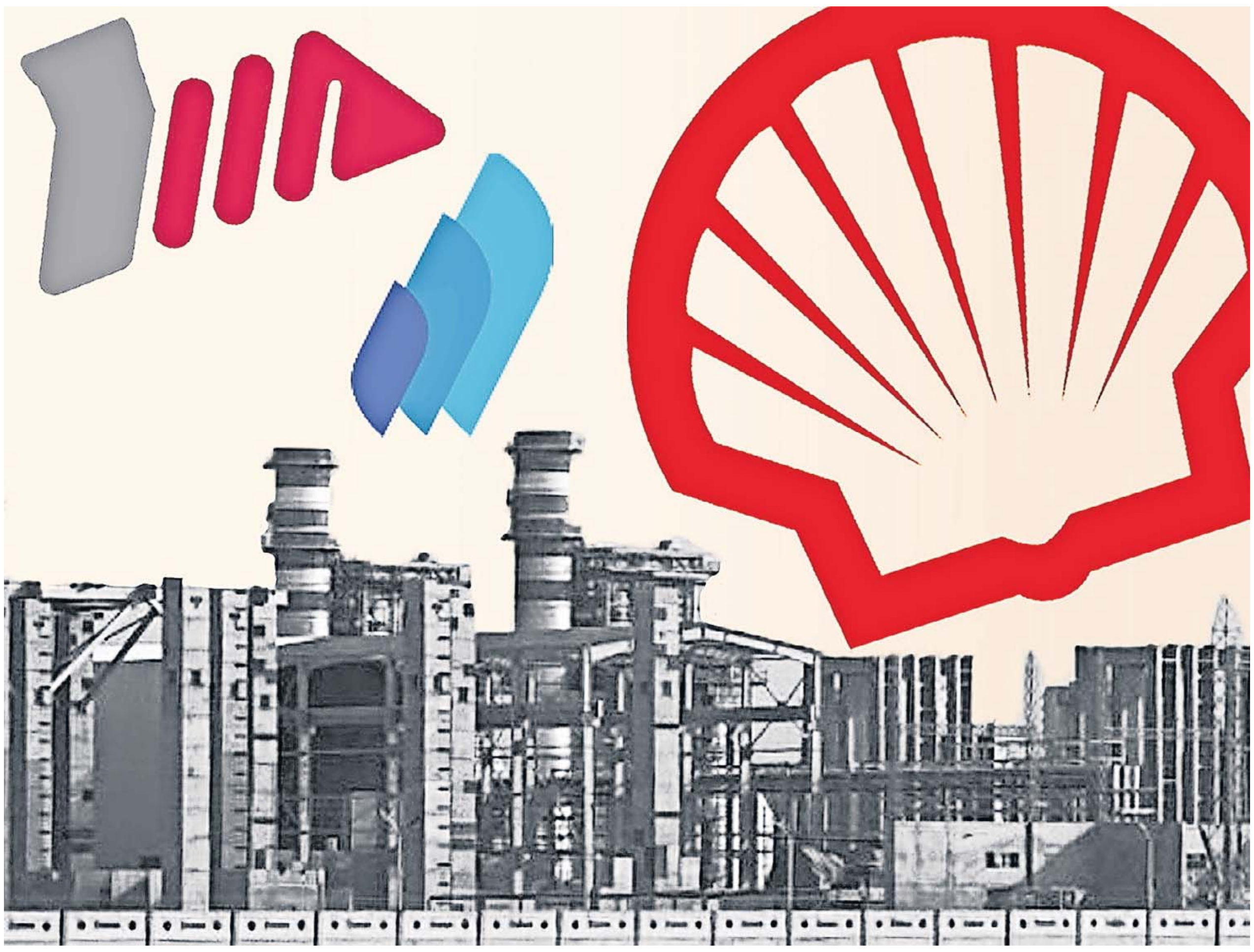
Some executives questioned Yaccarino's ultimate power. One top industry executive said it was noticeable that Musk was still executive chair and would be calling the shots. He has made clear he will continue to lead the product and engineering business. But a flurry of product changes, such as the introduction of the new premium service Twitter Blue, has failed to win over many users, and the platform has suffered an uptick in outages since the takeover.

Wieser warned that leaving her established perch for Twitter was a "very high beta situation" for Yaccarino. "Either it flames out, or it goes spectacularly."

Shell-backed gas project set to benefit Iran

UK energy major's Iraqi joint venture casts light on Tehran's pervasive business interests in neighbouring country

TOM WILSON — LONDON
RAYA JALABI — BEIRUT



Tehran-based Mapna Group is entitled to 78 per cent of the revenue from electricity sales at a power plant poised to supply a Shell-backed gas project in Iraq, according to documents seen by the Financial Times. — FT montage/ Mustafa Jumaah

An Iranian company is the biggest beneficiary of a power plant poised to supply a Shell-backed gas project in Iraq, showing the pervasive presence of Tehran's business interests in its neighbour and putting the UK group at odds with the west's shifting geopolitical priorities in the Middle East.

Basrah Gas Company, which is 44 per cent-owned by the London-listed energy major, will become a big consumer of power from Rumaila Independent Power Plant in southern Iraq when the gas company's new facility starts operations in June.

The Rumaila plant is owned by Jordan-based Shamara Holding but was built by Tehran-based Mapna Group, which is entitled to 78 per cent of the revenue from electricity sales, according to documents seen by the Financial Times and people involved in the contracts.

Shell's joint venture, which has received World Bank funding, has been widely praised for its role capturing gas that was previously flared at Iraq's oilfields and processing it for use in power generation, cooking or export. Iraq's state-owned South Gas Company owns 51 per cent of the project and Japanese trading house Mitsubishi 5 per cent.

Shell and Basrah Gas both said they had no dealings with Mapna. There is no indication that payments from Basrah Gas for power from the Rumaila plant, made via Iraq's ministry of electricity, will violate US or European sanctions on dealing with Iran.

But Mapna's role in the power plant reflects the extent to which companies close to the Iranian regime have become embedded in the fabric of the Iraqi economy.

"Iran's interests and influence run deep into the Iraqi state and its ministries," said Renad Mansour, director of the Iraq initiative at Chatham House. "Its long-term investments and networks ensure it remains the most influential foreign power."

Iran's reach is especially entrenched in energy, where 20 years after the US-led invasion, chronic under-investment and corruption has left Iraq heavily reliant on imports of Iranian gas and electricity, which provide more than a third of its power needs.

This is not only an issue for Shell. Several international oil companies, including BP and ExxonMobil, run oilfields in Iraq that pull power from Iraq's national grid.

Mapna's construction of the Rumaila plant is perhaps the best example of Iran's penetration of the sector. It also reflects how the west has vacillated on its rules of engagement with Tehran over the past decade, complicating operations for foreign investors in Iraq.

When Mapna was selected to help build the Rumaila plant in 2015, Iran was about to sign a nuclear deal with western powers and relations were improving. Three years later US president Donald Trump pulled out of the deal and reimposed sanctions.

The contract to develop the 3,000 megawatt Rumaila plant was awarded to Shamara in 2014, backed by a power purchase agreement with Iraq's ministry of electricity.

The company initially hoped to work with a US or European partner but struggled to generate interest as Isis fighters swept across parts of Iraq and Syria that summer, prompting western investor interest to cool, according to a person familiar with the early stages of the project.

At the same time, two years of negotiations between western powers and Iran on a nuclear deal had opened the possibility for renewed engagement with Iranian companies, the person said.

Mapna was ultimately awarded a $2.05bn contract to build and deliver the key technology for the Rumaila plant, backed by an Iraqi government payment guarantee signed on July 9 2015 — days before the west's nuclear deal with Iran.

Mapna, a power and infrastructure group founded in 1993, is one of Iran's most successful companies and the investment in Rumaila was championed by the Iranian regime.

The plant received support from the Export Guarantee Fund of Iran in the form of a $300mn political risk insurance policy and is described on Mapna's website as the company's "largest international power project".

The Shell joint venture agreed to take power from the Rumaila plant in 2019, signing a $35mn contract to build an 18km power line to a natural gas liquids (NGL) facility it was building nearby, according to documents shared with the FT by Unearthed, an investigative journalism group backed by Greenpeace.

The Basrah Gas NGL plant is due to start operations in June and will pull up to 70MW of power from Rumaila, which could increase to 200MW as the NGL facility is enlarged.

The Rumaila plant has been producing up to 1,500MW of power since 2020. The ministry of electricity is the sole provider of power in Iraq, meaning it acts in effect as a middleman at the Rumaila plant, paying Shamara and Mapna for the power produced and selling it to customers such as Basrah Gas.

Shamara collects 22 per cent of the revenues, while the rest flows to Mapna as repayment for its work on the project, according to the documents and the three people involved in the contracts. Shamara declined to comment.

Shell stressed it had "no dealings with Mapna or any Iranian entity", adding it could not comment on the ministry of electricity "infrastructure, flow of funds or their commercial arrangements with third-party suppliers or offtakers of power".

It also defended its participation in the Basrah Gas joint venture, saying it was "founded as part of the solution to enhance Iraq's energy self-sufficiency and reduce dependence on gas imports".

Mapna, South Gas Company and the ministry of electricity did not respond to requests for comment. Mitsubishi referred questions to Basrah Gas.

Basrah Gas said it only paid the ministry of electricity for power and had no dealings with Mapna and no contract with Shamara other than the 2019 agreement to build the power line. "BGC's integrity due diligence on Shamara Holding did not highlight any concerns related to sanctions or trade compliance laws," it said.

But Mapna's role in the project is contentious. A former prime ministerial adviser and another person familiar with the matter said Iraq, under US pressure, had frozen the Iraqi account into which Mapna received funds since 2021. As a result, Mapna had delayed finishing the plant, which was designed to generate 3,000MW once complete.

The US has been concerned, among other issues, with the role Hassan Danaeifar, a former Iranian ambassador to Baghdad and former member of the country's Revolutionary Guards, has played in lobbying Iraq on behalf of Mapna, the people said. Danaeifar could not be reached for comment.

"The US and Iraq are working together to modernise Iraq's financial system, combat corruption, and prevent manipulation of the financial system," the US State Department said in response to questions about Mapna.

It added that the US was focused on "enhancing Iraq's energy security" by supporting the country to advance gas capture projects to reduce emissions and generate power, construct regional interconnections and modernise electricity infrastructure.

The transfers to Mapna's account are not the only energy-related payments between Iraq and Iran to have encountered problems. US sanctions waivers allow Iraq to import gas and power directly from Iran but Baghdad's payments can only be used by Tehran to fund purchases of food or medicine or for other authorised international transfers.

This arcane arrangement helps Iraq to meet domestic power demand but means its payments to Iran are often delayed, prompting Tehran occasionally to turn off supply.

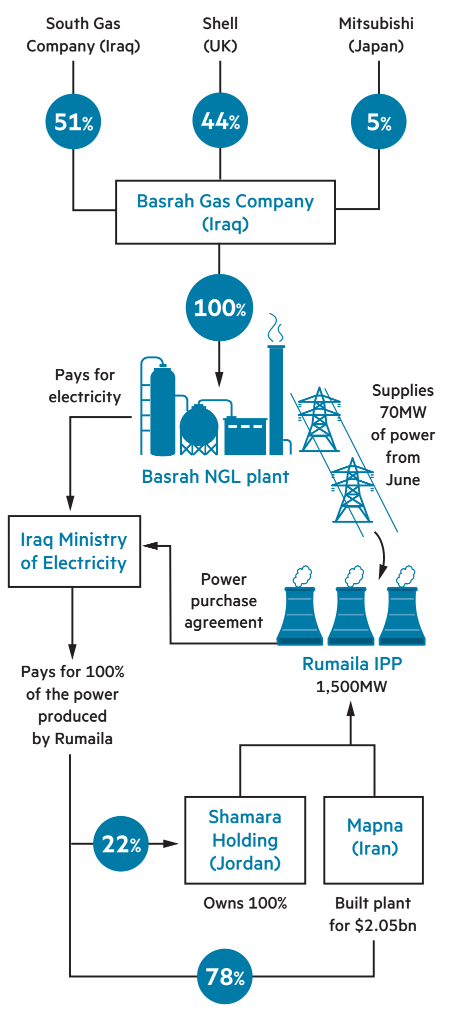
"The sanctions have created a Catch-22 for Iraq," said Yesar Al-Maleki, Gulf analyst at Middle East Economic Survey. "Washington understands that [Iranian gas and power imports] are crucial for the country's political and social stability and continues to allow import waivers. But the limitations on transferring the payments to Iran mean that they are building up in Iraq."

> 'Iran's interests and influence run deep into the Iraqi state and its ministries'

> 'BGC's due diligence on Shamara did not highlight any concerns related to sanctions'

> 'The US and Iraq are working together to modernise Iraq's financial system'

How Iran's Mapna stands to benefit from Shell's Iraqi joint venture



Source: FT research Visual journalism: Paul McCallum

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FT BOARD DIRECTOR PROGRAMME

Financials

Oaktree warns private credit faces crunch

Founder says high interest rates and slower growth will test $1.5tn market

HARRIET AGNEW AND ERIC PLATT
BEVERLY HILLS

Howard Marks, the co-founder of $172bn investment group Oaktree Capital Management, has warned that the boom in private credit will soon be tested as higher interest rates and slower economic growth heap pressure on corporate America.

The billionaire told the Financial Times that big asset managers had competed aggressively to lend to the largest private equity groups as money poured into their coffers in 2020 and 2021, raising questions over the due diligence the funds conducted when they agreed to provide multibillion-dollar loans.

"[Warren] Buffett says it's only when the tide goes out that you discover who has been swimming naked," he said. "The tide has not gone out yet on private lending, meaning the portfolios haven't been tested.

"Did the managers make good credit decisions, ensuring an adequate margin of safety, or did they invest fast because they could accumulate more capital? We'll see."

Private credit has ballooned since the 2008 financial crisis prompted regulatory reform that pushed banks away from speculative lending and new lenders stepped in to fill the void, including many backed by private equity titans such as Blackstone, Apollo and KKR.

Data provider Preqin estimates the private credit market, which includes loans for corporate takeovers, has grown to about $1.5tn from roughly $440bn a decade ago. Fundraising has been brisk, topping $150bn every year since 2019. But part of that influx of capital was lent when markets were on a seemingly unstoppable march higher, before the US Federal Reserve began aggressively raising interest rates. Competition among private lenders pushed borrowing costs down at the time.

Investors have raised questions over a number of loan deals signed in that period, including some that were based on a company's revenue growth as opposed to its profitability. Higher interest rates are also beginning to put pressure on companies, eating into profits, with some businesses asking their lenders to forgo cash interest payments.

Analysts with Moody's, who are calling for an uptick in corporate defaults as economic growth cools, have separately warned that the lack of insight into the private credit market suggests "that the sector could harbour risks that are not currently visible".

Marks set up Oaktree in 1995 with chief investment officer Bruce Karsh and three others. Known for his popular investment memos, he is an unequivocal contrarian, bargain hunter and follower of market psychology who tries to live by Buffett's investing maxim: be fearful when others are greedy and greedy when others are fearful.

Right now he sees a fertile environment for lenders such as Oaktree to step in and provide financing where banks are further retrenching following the collapse of Signature Bank and two other US regional lenders. The Fed said this month that banks were tightening lending standards for businesses and warned of a potential credit crunch.

"If everyone is eager to invest, you're not going to get a bargain," he said. "It's simple supply and demand. For more than a decade it wasn't a great time to be a lender. Now it's a much better time."

Oaktree has expanded beyond its roots in distressed debt and now invests across credit, private equity, real assets and publicly listed equities. The firm is in the midst of a fundraising push as it looks to raise $10bn to finance large private-equity backed takeovers.

Industrials

Adani groups seek to raise $2.5bn via shares issue

CHLOE CORNISH — MUMBAI

Indian tycoon Gautam Adani's companies are seeking to issue shares for the first time since a short seller accused the billionaire's group of accounting fraud and stock price manipulation this year.

Two Adani Group companies will issue shares in an effort to raise up to $2.5bn, they said in stock exchange filings on Saturday, in a sign that the previously growth-hungry company is seeking to return to business as usual after the accusations by New York-based Hindenburg Research in January.

Adani denied Hindenburg's accusations in a 413-page rebuttal.

The market turmoil it triggered forced the group to call off a $2.4bn stock offering by flagship company Adani Enterprises as its share price plunged. At the worst point in the market rout, Adani's combined stock lost about $150bn in value. Its share price has since rallied, although it remains well below its pre-sell-off level.

The board of Adani Enterprises, which includes Adani's coal trading and airport businesses, on Saturday passed a plan to raise Rs125bn ($1.5bn) by selling shares. The board of Adani Transmission, an electricity unit, approved an Rs85bn raise.

The announcements were made in separate stock exchange filings after the board meetings. The two companies said shares may be sold by "qualified institutional placement", a less regulated route than a market offering for corporates to raise money from institutions such as banks or funds, or other methods. They did not indicate who the buyers were likely to be, or what the funds would be used for.

> Adani Group said capex 'in new areas of investment . . . is being re-evaluated in the short term'

Since Hindenburg published its report Adani has tried to reassure investors by cutting down debt, including paying back $2.65bn of share-backed loans, and holding off on non-core investment. This week Adani Group said that capital expenditure "in new areas of investment, outside the core, is being re-evaluated in the short term".

A $1.9bn secondary share sale to US-based investment firm GQG Partners in early March helped boost its stock price. In quarterly earnings this month, Adani Enterprises reported profits after tax had more than doubled to Rs7.8bn ($95mn) on the same period last year. But last week global index provider MSCI dropped Adani Transmission and Adani Total Gas, Adani's city gas business with France's Total Energies, from its India equities benchmark.

MSCI reduced its assessment of how much of the two companies' stock is available to be traded after the Hindenberg report, and on Friday said the stocks no longer met its minimum requirements for free float size.

A third listed company, Adani Green Energy, had been due to decide on a fundraising on Saturday. But the renewables company said the meeting had been rescheduled to May 24.

See FT Opinion

Market questions. Week ahead

Spending on cars set to drive increase in US retail sales

Will US retail sales advance after two months of declines?

US retail sales data for April, to be released tomorrow, will offer insight into the sentiment among consumers as inflation cools.

Economists polled by Reuters forecast that the Census Bureau will report a 0.7 per cent increase in overall retail sales from the previous month, following two months of declines. That will also reverse the drop of 0.6 per cent in March.

Analysts at Credit Suisse expect the increase to be driven by robust spending on cars and fuel. The underlying number, which strips out car-related spending, is expected to be weaker. The broker is forecasting a decline of 0.2 per cent in that metric month over month.

The outlook for retail sales is mixed as continued strength in the labour market and wages is likely to support consumer spending. But it comes amid expectations of a recession and tightening financial conditions and slowing inflation, all of which tend to crimp spending.

The retail sales data comes after the Bureau of Labor Statistics last week reported that US inflation slowed more than expected in April as the Federal Reserve's interest rate increases continued to dent price rises. Smaller increases in prices typically slows the growth of retail spending. *Kate Duguid*

Retail therapy: a shopper in San Francisco. Economists are forecasting a rise in sales following two months of decline David Paul Morris/Bloomberg

How fast has Japan's economy grown in the first quarter?

Japan's economy is under pressure from an unsteady post-Covid rebound in consumption, faltering real wages and weak demand for its exports.

Real household spending unexpectedly fell 1.9 per cent year on year in March, denting the momentum of a recovery under way as the country threw off most of its coronavirus curbs and travel restrictions.

Real wages also notched up their 12th consecutive month of decline, with pay struggling to keep up with inflation, despite attention-grabbing increases from some of the country's biggest brands.

Goods exports, meanwhile, have suffered from weak global demand, particularly from China.

UBS, the Swiss broker, has downgraded its forecast for growth from a seasonally adjusted annual rate of 1 per cent, compared with the previous three-month period, down from an earlier estimate of 2 per cent.

But it thinks there are reasons to believe economic growth will continue throughout the year.

It points to pent-up demand created by the country's delayed pandemic reopening, the strong potential for inbound tourism and the likelihood of a rebound in real wages as lower import prices ease inflation.

"Ahead, we think the economic recovery will continue even with the headwinds from a slower global economy," it wrote.

Analysts at Goldman Sachs agree, revising their GDP growth forecast down to 1.1 per cent from 1.7 per cent, based on a "mixed picture" presented by March economic data, but still predicting a "reactive upturn" from the final quarter of the year. *William Langley*

Can the Mexican peso continue its run?

The Mexican peso has emerged as the best-performing major emerging markets currency this year as high interest rates, an increase in remittances and its proximity to a strong US economy have made it a favourite among currency investors.

The peso has risen by 10.8 per cent this year to trade at 17.6 to the dollar, its strongest level since 2017. But analysts warn that with a recession looming in the US, it could be close to its peak.

Oliver Harvey, managing director at Deutsche Bank, said the peso looked "among the most expensive" emerging market currencies and he would not expect it to outperform other currencies in the second half of the year, in the way it has done in recent months.

> Mexico's peso is one of the most sensitive of emerging market currencies to a slowing of the US economy

Caution comes as hedge funds have been ratcheting up their bets against Mexico, with $4.8bn government bonds on loan in May, up from a low of $2.7bn in February this year, according to data from S&P Global Market Intelligence.

The peso is one of the most sensitive of emerging market currencies to a slowing of the US economy.

Brent David, senior portfolio manager at RBC BlueBay, said a hard landing in the US, driven by debt ceiling concerns or tightening credit conditions, "would be extremely detrimental for the peso". *Mary McDougall*

Financials. Joint enterprise

Fate of Silicon Valley Bank's Chinese venture hangs in balance

Regulators put to the test in complicated aftermath of US parent lender's collapse

CHENG LENG — HONG KONG

Almost two months after the collapse of Silicon Valley Bank, the fate of its pioneering Chinese joint venture, SPD Silicon Valley Bank, remains in the balance.

A rare type of US-China joint venture lender in the Chinese financial sector, SPD Silicon Valley Bank has played a crucial role in establishing a lending environment for entrepreneurs and offering advice and assistance to local institutions since it was established a decade ago.

Despite fire sales of SVB's loan book to First Citizens Bank and its UK operation to HSBC, no buyers have emerged for SVB's stake in the Chinese business, which continues to operate.

"In terms of the foreign stake in the venture bank, we're communicating with Chinese regulatory authorities and [US regulator] FDIC, and the next step will be to resolve it in accordance with laws and regulations," said Jade Lu, president of SPD Silicon Valley Bank, in an emailed response to the Financial Times.

"During the process, the normal business operation of SPD Silicon Valley Bank will not be affected," she added.

The fate of Shanghai-based SPD Silicon Valley Bank offers a test for local regulators and their communication with American counterparts, illustrating the complicated aftermath of SVB's collapse as well as China's desire to build up its finance and tech sectors.

Discussions among Shanghai's municipal government, Shanghai Pudong Development Bank — SVB's local partner — and the China Banking and Insurance Regulatory Commission had run aground, largely because of regulatory hurdles, said two sources familiar with the discussions.

Under China's commercial banking rules, the collapse of SVB, the parent company, means it can no longer remain a shareholder in the joint venture. But, given the fanfare with which the joint venture was launched in 2012, authorities in China are reluctant to allow it to fold.

In a recent memoir, Ken Wilcox, former chair of SVB and a former board member of the Chinese operation, said Chinese officials valued the lending model of SVB and wanted other banks to learn from its expertise. The joint venture helped foster other local lenders including Bank of Hangzhou and Beijing Zhongguancun Bank, an important source of loans for tech companies.

Chinese banking rules exclude a few potential buyers. A bank cannot hold controlling stakes in more than two incorporated banking entities, ruling out candidates such as HSBC, which acquired SVB UK for £1 days after its parent collapsed.

In limbo: an SPD Silicon Valley Bank branch in Shanghai — Qilai Shen/Bloomberg

HSBC, incorporated as a local bank in China in 2007, also holds a controlling stake in Hang Seng Bank in China as its parent company. The same rules make it difficult for Shanghai Pudong Development Bank, the partner in the joint venture, to take full control.

There were many potential reasons for the delay compared with the quick resolution of other SVB units, said Andrew Fei, a Hong Kong-based partner at law firm King & Wood Mallesons.

"There's less urgency on the China side potentially, as according to the company's own statement, the joint venture bank is operating in a normal, standalone manner and with no pressing liquidity issues," said Fei.

"On the FDIC side, they can't really force somebody to buy it since it's a very niche asset . . . you have to have a China strategy and knowhow about China's tech and start-up community to be the right fit."

The lack of communication between regulators has added to the uncertainty. "The communication and co-ordination channel [has been] established, but how quickly or effectively they are exchanging views [over the stake resolution] is difficult for an outsider to tell," said Fei.

The Shanghai municipal government, CBIRC and FDIC did not respond to requests for comment.

The joint venture bank, registered with Rmb2bn ($290mn) in capital, reported a Rmb52mn profit on revenue of Rmb401mn in 2022. The bank's total assets were Rmb23.2bn as of the end of 2022, a tiny fraction of Shanghai's total Rmb23tn in banking assets last year. Software and information services start-ups account for a third of its clients, closely followed by manufacturers and retailers.

"A US bank with a certain tech portfolio is an ideal candidate to take over," said one person familiar with the regulatory thinking and discussions.

Fei said: "If there aren't many interested buyers, then the buyer may have a lot of bargaining power [in terms of price]."

Additional reporting by Sujeet Indap and Tabby Kinder

MARKET DATA

WORLD MARKETS AT A GLANCE

FT.COM/MARKETSDATA

Change during previous day's trading (%)

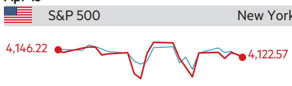
S&P 500	Nasdaq Composite	Dow Jones Ind	FTSE 100	FTSE Eurofirst 300	Nikkei	Hang Seng	FTSE All World $	$ per €	$ per £	¥ per $	£ per €	Oil Brent $ Sep	Gold $
-0.19%	-0.33%	-0.11%	0.31%	0.42%	0.90%	-0.59%	-0.35%	-0.549%	-0.399%	0.655%	-0.115%	0.34%	-1.04%

Stock Market movements over last 30 days, with the FTSE All-World in the same currency as a comparison

AMERICAS

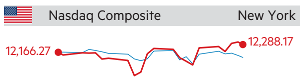
Apr 13 - - — Index — All World

S&P 500 New York



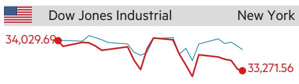
Day ↘ -0.19% Month ↗ 0.72% Year ↗ 4.87%

Nasdaq Composite New York



Day ↘ -0.33% Month ↗ 2.98% Year ↗ 8.04%

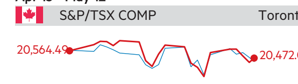
Dow Jones Industrial New York



Day ↘ -0.11% Month ↘ -1.15% Year ↗ 4.82%

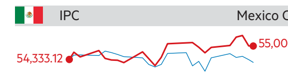
Apr 13 - May 12 — Index — All World

S&P/TSX COMP Toronto



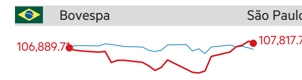
Day ↘ -0.16% Month ↘ -0.33% Year ↗ 3.49%

IPC Mexico City



Day ↘ -0.17% Month ↗ 1.06% Year ↗ 11.36%

Bovespa São Paulo

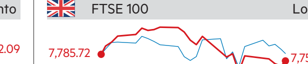


Day ↗ 0.07% Month ↗ 1.36% Year ↗ 2.52%

EUROPE

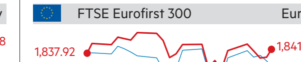
Apr 13 - May 12 — Index — All World

FTSE 100 London



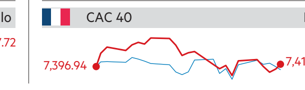
Day ↗ 0.31% Month ↘ -0.94% Year ↗ 7.16%

FTSE Eurofirst 300 Europe



Day ↗ 0.42% Month ↗ 0.64% Year ↗ 10.69%

CAC 40 Paris



Day ↗ 0.45% Month ↗ 0.33% Year ↗ 18.26%

Apr 13 - May 12 — Index — All World

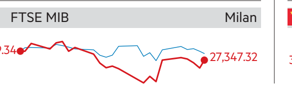
Xetra Dax Frankfurt

Day ↗ 0.50% Month ↗ 1.14% Year NaN%

Ibex 35 Madrid

Day ↗ 0.56% Month ↘ -0.04% Year ↗ 11.09%

FTSE MIB Milan

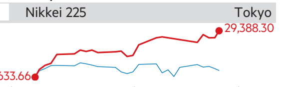


Day ↗ 0.92% Month ↘ -0.65% Year ↗ 15.27%

ASIA

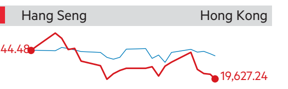
Apr 13 - May 12 — Index — All World

Nikkei 225 Tokyo



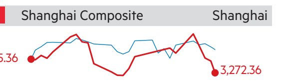
Day ↗ 0.90% Month ↗ 5.33% Year ↗ 12.20%

Hang Seng Hong Kong



Day ↘ -0.59% Month ↘ -4.29% Year ↘ -1.10%

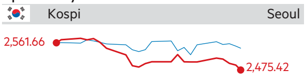
Shanghai Composite Shanghai



Day ↘ -1.12% Month ↘ -1.24% Year ↗ 6.99%

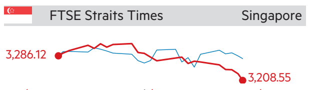
Apr 13 - May 12 — Index — All World

Kospi Seoul



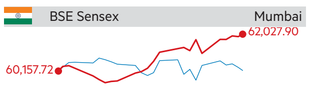
Day ↘ -0.63% Month ↘ -2.84% Year ↘ -4.51%

FTSE Straits Times Singapore



Day ↘ -0.65% Month ↘ -2.72% Year ↘ -0.56%

BSE Sensex Mumbai



Day ↗ 0.20% Month ↗ 3.09% Year ↗ 14.66%

Country	Index	Latest	Previous
Argentina	Merval	319119.68	313281.43
Australia	All Ordinaries	7453.20	7449.70
	S&P/ASX 200	7256.70	7251.90
	S&P/ASX 200 Res	5944.40	6000.70
Austria	ATX	3176.93	3181.01
Belgium	BEL 20	3741.07	3739.83
	BEL Mid	10007.06	10021.09
Brazil	IBovespa	108336.79	108256.40
Canada	S&P/TSX 60	1231.24	1233.58
	S&P/TSX Comp	20385.81	20417.61
	S&P/TSX Div Met & Min	1784.95	1843.12
Chile	S&P/CLX IGPA Gen	28521.54	28534.24
China	FTSE A200	10380.56	10513.84
	FTSE B35	9000.71	8988.96
	Shanghai A	3430.21	3469.19
	Shanghai B	290.08	292.01
	Shanghai Comp	3272.36	3309.55
	Shenzhen A	2102.68	2126.48
	Shenzhen B	1182.57	1189.56
Colombia	COLCAP	1261.61	1260.21
Croatia	CROBEX	2013.05	2011.29

Country	Index	Latest	Previous
Cyprus	CSE M&P Gen	68.46	68.68
Czech Republic	PX	1371.71	1387.67
Denmark	OMXC Copenahgen 20	2137.81	2105.60
Egypt	EGX 30	17270.69	17494.73
Estonia	OMX Tallinn	1907.63	1910.36
Finland	OMX Helsinki General	10490.02	10525.03
France	CAC 40	7414.85	7381.78
	SBF 120	5648.51	5625.02
Germany	M-DAX	27335.32	27247.61
	TecDAX	3230.16	3218.95
	XETRA Dax	15913.82	15834.91
Greece	Athens Gen	1122.75	1122.41
	FTSE/ASE 20	2734.77	2737.69
Hong Kong	Hang Seng	19627.24	19743.79
	HS China Enterprise	6663.55	6695.11
	HSCC Red Chip	4045.82	4116.92
Hungary	Bux	46044.03	46073.98
India	BSE Sensex	62027.90	61904.52
	Nifty 500	15477.35	15484.05
Indonesia	Jakarta Comp	6707.76	6755.94
Ireland	ISEQ Overall	8545.40	8544.01
Israel	Tel Aviv 125	1794.58	1772.05

Country	Index	Latest	Previous
Italy	FTSE Italia All-Share	29482.74	29233.10
	FTSE Italia Mid Cap	43179.03	43004.54
	FTSE MIB	27347.32	27098.89
Japan	2nd Section	7228.27	7239.06
	Nikkei 225	29388.30	29126.72
	S&P Topix 150	1802.81	1789.82
	Topix	2096.39	2083.09
Jordan	Amman SE	2477.38	2474.20
Kenya	NSE 20	1497.91	1507.78
Kuwait	KSX Market Index	6633.44	6603.51
Latvia	OMX Riga	1142.02	1142.02
Lithuania	OMX Vilnius	1007.24	1008.07
Luxembourg	LuxX	1485.87	1487.06
Malaysia	FTSE Bursa KLCI	1422.92	1425.18
Mexico	IPC	54918.36	55014.16
Morocco	MASI	10482.49	10409.17
Netherlands	AEX	752.99	751.12
	AEX All Share	1018.84	1016.59
New Zealand	NZX 50	11938.84	11887.76
Nigeria	SE All Share	52209.06	52605.41
Norway	Oslo All Share	1017.37	1006.88
Pakistan	KSE 100	41487.58	41325.63

Country	Index	Latest	Previous
Philippines	Manila Comp	6578.15	6675.46
Poland	Wig	63736.10	63144.10
Portugal	PSI 20	6074.44	6071.22
	PSI General	4643.57	4589.62
Romania	BET Index	12039.62	12136.91
Russia	Micex Index	2436.57	2445.30
	RTX	1245.71	1212.57
Saudi-Arabia	TADAWUL All Share Index	11392.78	11293.18
Singapore	FTSE Straits Times	3208.55	3229.55
Slovakia	SAX	309.31	309.88
Slovenia	SBI TOP	-	-
South Africa	FTSE/JSE All Share	78330.20	76997.16
	FTSE/JSE Res 20	69836.91	69272.25
	FTSE/JSE Top 40	72961.36	71633.93
South Korea	Kospi	2475.42	2491.00
	Kospi 200	323.61	325.28
Spain	IBEX 35	9234.10	9182.80
Sri Lanka	CSE All Share	8927.74	8949.82
Sweden	OMX Stockholm 30	2236.03	2229.91
	OMX Stockholm AS	842.78	842.93
Switzerland	SMI Index	11564.73	11522.97

Country	Index	Latest	Previous
Taiwan	Weighted Pr	15502.36	15514.64
Thailand	Bangkok SET	1560.89	1566.76
Turkey	BIST 100	4773.56	4848.01
UAE	Abu Dhabi General Index	9222.93	9251.11
UK	FT 30	2839.10	2833.90
	FTSE 100	7754.62	7730.58
	FTSE 4Good UK	7090.03	7075.67
	FTSE All Share	4224.06	4215.22
	FTSE techMARK 100	6883.93	6889.16
USA	DJ Composite	11063.10	11070.21
	DJ Industrial	33271.56	33309.51
	DJ Transport	13818.08	13834.83
	DJ Utilities	958.66	956.30
	Nasdaq 100	13345.62	13389.78
	Nasdaq Cmp	12288.17	12328.51
	NYSE Comp	15239.88	15263.07
	S&P 500	4122.57	4130.62
	Wilshire 5000	40624.91	40719.42
Venezuela	IBC	34108.56	33866.58
Vietnam	VNI	1066.90	1057.12

Country	Index	Latest	Previous
Cross-Border	DJ Global Titans ($)	467.78	469.20
	Euro Stoxx 50 (Eur)	4314.95	4309.75
	Euronext 100 ID	1366.85	1360.84
	FTSE 4Good Global ($)	10524.37	10557.30
	FTSE All World ($)	428.07	429.57
	FTSE E300	1841.73	1834.03
	FTSE Eurotop 100	3657.04	3641.55
	FTSE Global 100 ($)	2795.78	2805.83
	FTSE Gold Min ($)	2049.97	2123.56
	FTSE Latibex Top (Eur)	4440.00	4432.20
	FTSE Multinationals ($)	2925.55	2929.60
	FTSE World ($)	779.27	781.87
	FTSEurofirst 100 (Eur)	4920.96	4908.16
	FTSEurofirst 80 (Eur)	5855.16	5843.36
	MSCI ACWI Fr ($)	650.70	652.43
	MSCI All World ($)	2814.86	2822.60
	MSCI Europe (Eur)	1877.96	1875.97
	MSCI Pacific ($)	2767.22	2776.41
	S&P Euro (Eur)	1912.39	1907.96
	S&P Europe 350 (Eur)	1889.04	1881.24
	S&P Global 1200 ($)	3103.89	3110.16
	Stoxx 50 (Eur)	4038.74	4020.64

(c) Closed. (u) Unavaliable. † Correction. ♥ Subject to official recalculation. For more index coverage please see www.ft.com/worldindices. A fuller version of this table is available on the ft.com research data archive.

STOCK MARKET: BIGGEST MOVERS

AMERICA

ACTIVE STOCKS	stock traded m's	close price	Day's change
Tesla	153.3	170.27	-1.81
Nvidia	37.9	283.48	-2.30
First Solar	30.9	231.19	48.00
Apple	30.5	172.68	-1.07
Microsoft	26.2	308.57	-1.54
Advanced Micro Devices	25.0	95.29	-1.81
Alphabet	21.2	117.30	0.73
Amazon.com	20.5	110.75	-1.43
Meta Platforms	17.2	234.28	-1.51
Alphabet	14.0	117.74	0.84
BIGGEST MOVERS	**Close price**	**Day's change**	**Day's chng%**
Ups			
First Solar	231.19	48.00	26.20
News	17.74	0.91	5.38
News	17.64	0.90	5.35
Enphase Energy	169.22	8.43	5.24
Nrg Energy	32.32	1.28	4.12
Downs			
Gen Digital	15.76	-1.40	-8.15
Catalent	32.58	-1.61	-4.71
Carnival	9.84	-0.40	-3.91
Loln National	19.21	-0.74	-3.69
Comerica	31.51	-1.16	-3.55

Based on the constituents of the S&P500

LONDON

ACTIVE STOCKS	stock traded m's	close price	Day's change
Shell	146.0	2409.00	22.00
Bp	109.6	483.00	5.30
Unilever	106.1	4353.50	14.00
Rio Tinto	105.9	4917.50	35.00
Reckitt Benckiser	104.1	6490.00	36.00
British American Tobacco	102.2	2709.00	-18.50
Diageo	101.3	3534.50	-85.00
Haleon	100.3	343.00	0.15
Lloyds Banking	95.8	45.56	-0.32
Hsbc Holdings	94.0	599.70	6.10
BIGGEST MOVERS	**Close price**	**Day's change**	**Day's chng%**
Ups			
4imprint	4475.00	275.00	6.55
Airtel Africa	115.10	3.40	3.04
Beazley	604.00	17.50	2.98
Redrow	528.00	15.00	2.92
Crest Nicholson Holdings	263.00	7.40	2.90
Downs			
Nextenergy Solar Fund	102.20	-5.60	-5.19
Ferrexpo	104.70	-5.70	-5.16
Great Portland Estates	488.40	-23.10	-4.52
Derwent London	2170.00	-102.00	-4.49
Essentra	198.80	-8.20	-3.96

Based on the constituents of the FTSE 350 index

EURO MARKETS

ACTIVE STOCKS	stock traded m's	close price	Day's change
Richemont N	286.9	158.78	5.39
Novartis N	249.7	94.97	-0.05
Novo Nordisk B A/s	231.1	157.86	2.69
Unicredit	217.8	18.87	0.01
Nestle N	214.3	118.01	-0.21
Roche Gs	195.7	292.26	2.36
Stellantis	190.1	14.95	0.04
Totalenergies	184.7	55.84	0.97
Lvmh	184.2	883.80	-3.80
Ing Groep N.v.	161.4	11.75	0.25
BIGGEST MOVERS	**Close price**	**Day's change**	**Day's chng%**
Ups			
Orsted A/s Dk 10	11.72	0.48	4.23
Richemont N	158.78	5.39	3.51
Bnp Paribas Act.a	58.81	1.46	2.55
Ing Groep N.v.	11.75	0.25	2.17
Stmicroelectronics	38.85	0.73	1.91
Downs			
Bay.motoren Werke Vzo	94.70	-10.30	-9.81
Bay.motoren Werke Ag St	99.54	-8.86	-8.17
Adyen	1434.60	-22.40	-1.54
Neste	38.83	-0.48	-1.22
Siemens Health.ag Na O.n.	53.22	-0.64	-1.19

Based on the constituents of the FTSEurofirst 300 Eurozone index

TOKYO

ACTIVE STOCKS	stock traded m's	close price	Day's change
Softbank .	1125.3	4949.00	-189.00
Tokyo Electron	1048.0	16395.00	510.00
Keyence	562.5	65520.00	1720.00
Toyota Motor	545.6	1942.00	26.00
Nippon Telegraph And Telephone	541.9	4108.00	-81.00
Takeda Pharmaceutical	514.9	4449.00	-116.00
Sony	499.2	12780.00	225.00
Honda Motor Co.,	484.9	3741.00	159.00
Fast Retailing Co.,	484.8	31640.00	500.00
Mitsubishi Ufj Fin,.	451.2	868.50	-1.70
BIGGEST MOVERS	**Close price**	**Day's change**	**Day's chng%**
Ups			
Kobe Steel,	1142.00	122.00	11.96
Sumitomo Realty & Development Co.,	3372.00	252.00	8.08
Sapporo Holdings	3960.00	250.00	6.74
Nippon Suisan Kaisha,	622.00	35.00	5.96
Nissan Motor Co.,	532.50	26.70	5.28
Downs			
Sharp	904.00	-86.00	-8.69
Casio Computer Co.,	1252.00	-85.00	-6.36
Trend Micro orporated	6390.00	-270.00	-4.05
Tosoh	1705.00	-69.00	-3.89
Softbank .	4949.00	-189.00	-3.68

Based on the constituents of the Nikkei 225 index

UK MARKET WINNERS AND LOSERS

FTSE 100	May 12 price(p)	%Chg week	%Chg ytd
Winners			
Melrose Industries	461.60	9.2	14.4
Jd Sports Fashion	173.25	6.5	37.3
Convatec	222.00	4.4	-4.8
Compass	2157.00	4.3	12.5
Beazley	604.00	3.9	-
3i	1828.50	3.1	36.3
Flutter Entertainment	15920.00	2.9	41.0
Int Consolidated Airlines S.a.	154.85	2.9	25.0
Rentokil Initial	645.60	2.4	27.1
London Stock Exchange	8554.00	2.3	19.9
Relx	2491.00	2.3	8.9
Halma	2443.00	2.2	23.8
Losers			
Ocado	441.40	-10.9	-
Land Securities	614.40	-7.6	-1.0
British Land	371.10	-6.8	-6.1
Fresnillo	681.20	-6.7	-
Vodafone	89.86	-5.4	6.7
Antofagasta	1397.00	-4.9	-9.6
Anglo American	2337.50	-4.5	-
Unite	912.00	-4.2	0.2
Airtel Africa	115.10	-4.0	3.0
Diageo	3534.50	-3.7	-3.2
Bp	483.00	-3.4	0.1
British American Tobacco	2709.00	-3.4	-

FTSE 250	May 12 price(p)	%Chg week	%Chg ytd
Winners			
Mitchells & Butlers	196.50	10.3	42.4
Bank Of Georgia	3325.00	9.6	27.6
4imprint	4475.00	6.2	6.5
Just	89.80	6.0	10.0
Diploma	2850.00	5.6	2.7
Virgin Money Uk	152.25	5.4	-
Playtech	616.00	5.4	21.0
Digital 9 Infrastructure	66.20	3.9	-
Lancashire Holdings	616.50	3.4	-5.2
Abrdn Private Equity Opportunities Trust	449.00	3.1	-0.7
Target Healthcare Reit	79.50	2.9	-1.2
Computacenter	2416.00	2.8	26.4
Losers			
Asos	505.00	-27.5	-1.1
Iwg	150.20	-11.0	-9.5
Petershill Partners	151.00	-9.7	-
Tullow Oil	23.80	-9.6	-
Helios Towers	92.00	-9.0	-
Victrex	1520.00	-8.7	-4.8
Great Portland Estates	488.40	-8.6	-1.3
Derwent London	2170.00	-8.1	-8.4
Bridgepoint	224.80	-7.7	19.4
Int Distributions Services	227.90	-7.3	7.0
Puretech Health	205.50	-7.0	-
Ninety One	172.50	-6.8	-7.2

FTSE SmallCap	May 12 price(p)	%Chg week	%Chg ytd
Winners			
Civitas Social Housing	80.40	44.7	27.1
Triple Point Social Housing Reit	55.40	20.8	-9.6
Seraphim Space Investment Trust	43.00	15.1	-4.9
Hostelworld	142.50	10.0	23.7
Palace Capital	236.00	8.5	10.3
Restaurant	50.50	8.4	61.9
Int Personal Finance	105.50	7.7	44.3
Blackrock Latin American Investment Trust	372.00	7.5	-2.1
Treatt	707.00	6.4	13.0
Esken	5.10	6.3	0.0
Luceco	116.80	6.2	18.9
Mears	245.00	6.1	17.8
Losers			
Reach	76.15	-12.8	-
Ncc	99.60	-8.6	-50.2
Costain	53.40	-8.2	35.6
Helical	275.50	-8.2	-
Pod Point Holdings	79.00	-7.7	29.5
Saga	114.00	-6.6	-9.4
Schroder Real Estate Investment Trust	43.90	-5.7	2.6
Up Global Sourcing Holdings	128.50	-5.5	-
Sabre Insurance	120.80	-5.5	13.5
Kin And Carta	79.00	-4.8	-
Metro Bank	94.90	-4.2	-
On The Beach	122.80	-4.2	-21.5

Industry Sectors	May 12 price(p)	%Chg week	%Chg ytd
Winners			
General Retailers	3783.95	4.4	12.6
General Financial	13572.26	2.1	17.2
Nonlife Insurance	3216.48	1.6	-3.9
Media	9674.95	1.2	6.4
Electricity	11423.37	1.0	6.9
Industrial Transportation	3460.33	0.7	-0.4
Travel & Leisure	7655.79	0.6	23.4
Aerospace & Defense	6421.52	0.5	25.3
Pharmaceuticals & Biotech.	22256.33	0.5	5.8
Support Services	10432.58	0.3	4.9
Construction & Materials	8055.31	0.3	17.4
Gas Water & Multiutilities index	6475.14	0.2	14.3
Losers			
Real Estate Investment Trusts	2220.22	-4.4	-0.5
Mobile Telecommunications	2393.02	-4.2	12.1
Real Estate & Investment Servic	2259.27	-3.5	6.7
Beverages	27481.07	-3.3	-1.3
Tobacco	30052.75	-2.7	-
Industrial Metals	6252.82	-2.7	-
Industrial Engineering	14402.10	-2.3	4.3
Mining	11309.96	-2.3	1.4
Chemicals	11531.55	-1.5	-1.4
Food Producers	6619.89	-1.3	16.5
Life Insurance	6904.20	-1.3	-2.1
Personal Goods	35324.32	-1.1	14.6

Based on last week's performance. †Price at suspension.

CURRENCIES

May 12	Currency	DOLLAR Closing Mid	DOLLAR Day's Change	EURO Closing Mid	EURO Day's Change	POUND Closing Mid	POUND Day's Change
Argentina	Argentine Peso	229.3886	0.4146	249.1729	-0.8205	286.0599	-0.6737
Australia	Australian Dollar	1.5032	0.0112	1.6328	0.0039	1.8746	0.0062
Bahrain	Bahrainin Dinar	0.3770	-	0.4095	-0.0021	0.4701	-0.0020
Bolivia	Bolivian Boliviano	6.9100	-	7.5060	-0.0384	8.6171	-0.0359
Brazil	Brazilian Real	4.9249	-0.0501	5.3497	-0.0821	6.1416	-0.0884
Canada	Canadian Dollar	1.3531	0.0055	1.4698	-0.0015	1.6874	-0.0001
Chile	Chilean Peso	787.7050	-8.2050	855.6431	-13.3302	982.3106	-14.3710
China	Chinese Yuan	6.9503	0.0105	7.5498	-0.0271	8.6674	-0.0229
Colombia	Colombian Peso	4567.1000	-45.6200	4961.0040	-75.1581	5695.4225	-80.8776
Costa Rica	Costa Rican Colon	538.1600	-0.8750	584.5753	-3.9423	671.1145	-3.8943
Czech Republic	Czech Koruna	21.7473	0.1898	23.6230	0.0865	27.1201	0.1246
Denmark	Danish Krone	6.8558	0.0328	7.4470	-0.0022	8.5495	0.0054
Egypt	Egyptian Pound	30.9071	0.0378	33.5728	-0.1303	38.5428	-0.1134
Hong Kong	Hong Kong Dollar	7.8429	0.0076	8.5194	-0.0352	9.7806	-0.0312
Hungary	Hungarian Forint	340.9114	0.4187	370.3144	-1.4351	425.1349	-1.2486
India	Indian Rupee	82.1675	0.0762	89.2543	-0.3728	102.4673	-0.3318
Indonesia	Indonesian Rupiah	14750.0000	26.5000	16022.1747	-52.9282	18394.0521	-43.5119
Israel	Israeli Shekel	3.6737	0.0300	3.9905	0.0124	4.5812	0.0185
Japan	Japanese Yen	135.3050	0.8800	146.9748	0.2098	168.7326	0.3984
..One Month		135.3044	0.8787	146.9744	0.2089	168.7319	0.3970
..Three Month		135.3031	0.8762	146.9735	0.2072	168.7305	0.3942
..One Year		135.2981	0.8663	146.9694	0.1990	168.7319	0.3893
Kenya	Kenyan Shilling	137.0000	0.1000	148.8160	-0.6512	170.8464	-0.5872
Kuwait	Kuwaiti Dinar	0.3069	0.0003	0.3333	-0.0014	0.3827	-0.0013
Malaysia	Malaysian Ringgit	4.4790	0.0165	4.8653	-0.0068	5.5856	-0.0026
Mexico	Mexican Peso	17.6160	-0.0258	19.1353	-0.1259	21.9681	-0.1239
New Zealand	New Zealand Dollar	1.6133	0.0280	1.7524	0.0216	2.0119	0.0267
Nigeria	Nigerian Naira	461.5000	-1.0000	501.3035	-3.6533	575.5154	-3.6522
Norway	Norwegian Krone	10.6997	0.0429	11.6225	-0.0125	13.3430	-0.0019
Pakistan	Pakistani Rupee	285.2500	-10.5000	309.8523	-13.0471	355.7221	-14.6320
Peru	Peruvian Nuevo Sol	3.6526	-0.0309	3.9677	-0.0540	4.5551	-0.0576
Philippines	Philippine Peso	55.8000	0.0350	60.6126	-0.2715	69.5856	-0.2463
Poland	Polish Zloty	4.1595	0.0017	4.5182	-0.0212	5.1871	-0.0195
Romania	Romanian Leu	4.5390	0.0256	4.9305	0.0028	5.6604	0.0085
Russia	Russian Ruble	77.6800	0.8862	84.3798	0.5365	96.8711	0.7059
Saudi Arabia	Saudi Riyal	3.7502	-	4.0736	-0.0208	4.6767	-0.0195
Singapore	Singapore Dollar	1.3378	0.0070	1.4532	0.0002	1.6683	0.0018
South Africa	South African Rand	19.3375	0.1994	21.0053	0.1103	24.1149	0.1491
South Korea	South Korean Won	1334.5500	8.3500	1449.6525	1.7092	1664.2557	3.5162
Sweden	Swedish Krona	10.3770	0.0477	11.2720	-0.0055	12.9407	0.0058
Switzerland	Swiss Franc	0.8969	0.0026	0.9743	-0.0021	1.1185	-0.0014
Taiwan	New Taiwan Dollar	30.7640	0.0240	33.4173	-0.1445	38.3644	-0.1299
Thailand	Thai Baht	33.9925	0.2725	36.9243	0.1088	42.3905	0.1645
Tunisia	Tunisian Dinar	3.0816	0.0188	3.3473	0.0034	3.8429	0.0075
Turkey	Turkish Lira	19.5895	0.0092	21.2791	-0.0987	24.4292	-0.0903
United Arab Emirates	UAE Dirham	3.6721	-	3.9888	-0.0204	4.5792	-0.0191
United Kingdom	Pound Sterling	0.8019	0.0033	0.8711	-0.0008	-	-
..One Month		0.8020	0.0033	0.8710	-0.0008	-	-
..Three Month		0.8021	0.0033	0.8708	-0.0008	-	-
..One Year		0.8020	0.0033	0.8698	-0.0008	-	-
United States	United States Dollar	-	-	1.0862	-0.0056	1.2471	-0.0052
..One Month		-	-	1.0861	-0.1660	1.2471	-0.0052
..Three Month		-	-	1.0857	-0.1660	1.2473	-0.0052
..One Year		-	-	1.0846	-0.1660	1.2471	-0.0052
Vietnam	Vietnamese Dong	23453.5000	-13.5000	25476.3439	-144.9073	29247.8050	-138.8946
European Union	Euro	0.9206	0.0047	-	-	1.1480	0.0011
..One Month		0.9204	0.0047	-	-	1.1479	0.0011
..Three Month		0.9201	0.0047	-	-	1.1477	0.0011
..One Year		0.9190	0.0047	-	-	1.1468	0.0011

Rates are derived from WM Reuters Spot Rates and MorningStar (latest rates at time of production). Some values are rounded. Currency redenominated by 1000. The exchange rates printed in this table are also available at www.FT.com/marketsdata

FTSE ACTUARIES SHARE INDICES

UK SERIES www.ft.com/equities

Produced in conjunction with the Institute and Faculty of Actuaries

	£ Strlg May 12	Day's chge%	Euro Index	£ Strlg May 11	£ Strlg May 10	Year ago	Div yield%	Cover	P/E ratio	X/D adj	Total Return
FTSE 100 (100)	7754.62	0.31	6939.06	7730.58	7741.33	7233.34	3.64	1.78	15.37	129.51	8102.33
FTSE 250 (250)	19188.37	-0.40	17170.32	19266.30	19273.29	19480.88	3.27	0.87	35.30	234.15	16178.59
FTSE 250 ex Inv Co (170)	19848.87	-0.33	17761.35	19914.82	19963.86	20078.76	3.37	1.18	25.23	248.11	17082.14
FTSE 350 (350)	4267.72	0.21	3818.88	4258.80	4264.10	4030.88	3.59	1.67	16.70	68.60	8843.34
FTSE 350 ex Investment Trusts (267)	4219.63	0.25	3775.85	4209.19	4215.92	3966.32	3.64	1.82	15.15	69.13	4520.28
FTSE 350 Higher Yield (135)	3615.86	0.45	3235.58	3599.53	3617.63	3530.14	4.97	1.73	11.66	74.73	8493.73
FTSE 350 Lower Yield (215)	4498.80	-0.03	4025.66	4500.36	4488.95	4109.15	2.21	1.53	29.54	51.52	5606.20
FTSE SmallCap (228)	6253.29	0.23	5595.62	6239.18	6244.40	6493.27	3.53	-0.50	-56.92	84.79	10676.71
FTSE SmallCap ex Inv Co (120)	5089.42	0.02	4554.16	5088.55	5096.43	5486.05	3.63	1.57	17.56	70.16	9036.00
FTSE All-Share (578)	4224.06	0.21	3779.82	4215.22	4220.42	3999.79	3.59	1.62	17.22	67.66	8838.36
FTSE All-Share ex Inv Co (387)	4142.21	0.24	3706.57	4132.09	4138.69	3901.41	3.64	1.81	15.18	67.72	4505.17
FTSE All-Share ex Multinationals (517)	1102.06	-0.13	818.14	1103.54	1104.06	1124.83	4.00	1.06	23.60	17.37	2387.76
FTSE Fledgling (78)	11549.31	0.18	10334.66	11528.83	11540.04	12564.08	3.23	-1.27	-24.36	131.62	25351.19
FTSE Fledgling ex Inv Co (30)	15572.63	0.75	13934.84	15456.11	15448.60	17675.82	3.52	6.21	4.58	226.62	33261.08
FTSE All-Small (306)	4358.97	0.22	3900.53	4349.26	4352.93	4537.24	3.52	-0.54	-52.93	58.57	9544.56
FTSE All-Small ex Inv Co (150)	3831.06	0.05	3428.14	3829.32	3834.95	4137.29	3.63	1.74	15.82	52.90	8614.24
FTSE AIM All-Share (721)	816.96	0.21	731.04	815.23	825.19	939.07	1.77	1.60	35.35	4.66	966.11
FTSE All-Share Technology (18)	2043.95	-0.51	1755.45	2054.42	2047.88	1760.71	1.87	1.53	34.99	15.02	2984.14
FTSE All-Share Telecommunications (6)	1531.89	-0.73	1315.67	1543.17	1569.45	1919.75	6.88	1.07	13.54	1.03	2355.06
FTSE All-Share Health Care (14)	15536.83	0.80	13343.83	15413.06	15286.58	14242.18	2.35	1.12	37.90	185.25	14570.05
FTSE All-Share Financials (254)	4742.14	0.09	4072.80	4738.00	4733.23	4347.18	3.98	1.27	19.79	121.53	5414.87
FTSE All-Share Real Estate (54)	817.66	-1.32	734.63	828.63	829.43	1040.25	4.38	0.69	32.93	13.80	877.77
FTSE All-Share Consumer Discretionary (83)	5175.81	0.22	4445.25	5164.54	5141.23	4555.87	2.19	1.25	36.54	48.79	5544.61
FTSE All-Share Consumer Staples (22)	19420.51	-0.41	16679.33	19500.38	19429.31	19198.18	4.00	1.61	15.52	253.08	18108.87
FTSE All-Share Industrials (84)	6838.87	0.17	5873.58	6826.96	6830.72	5995.16	2.26	1.22	36.34	69.81	8005.16
FTSE All-Share Basic Materials (21)	7656.81	0.49	6576.06	7619.55	7838.59	8391.96	6.66	3.43	4.38	247.51	10757.26
FTSE All-Share Energy (14)	8610.51	0.94	7395.15	8530.31	8613.93	7831.69	3.87	1.78	14.54	122.39	10618.19
FTSE All-Share Utilities (8)	9565.22	0.70	8215.10	9498.59	9533.70	9469.81	4.09	0.96	25.31	42.27	14674.13
FTSE All-Share Software and Computer Services (16)	2212.39	-0.51	1900.12	2223.81	2216.68	1896.62	1.85	1.55	34.85	15.79	3416.62
FTSE All-Share Technology Hardware and Equipment (2)	4175.83	-0.22	3586.42	4184.85	4178.76	4668.86	3.14	0.65	49.17	89.37	5529.17
FTSE All-Share Telecommunications Equipment (1)	397.45	-0.89	341.35	401.03	398.35	506.54	3.53	2.14	13.20	9.21	581.65
FTSE All-Share Telecommunications Service Providers (5)	2389.40	-0.73	2052.14	2406.87	2449.61	2990.45	6.98	1.06	13.56	0.00	3346.58
FTSE All-Share Health Care Providers (3)	11355.03	-0.31	9752.29	11390.63	11404.58	8526.10	0.51	7.04	27.69	0.00	10539.30
FTSE All-Share Medical Equipment and Services (2)	6114.09	0.37	5251.10	6091.65	5981.99	5847.28	2.46	1.16	34.90	92.56	6005.68
FTSE All-Share Pharmaceuticals and Biotechnology (9)	22190.92	0.84	19058.71	22006.22	21835.45	20330.23	2.36	1.11	38.23	263.42	18737.33
FTSE All-Share Banks (12)	3493.96	0.52	3000.80	3475.86	3502.70	2974.80	4.60	2.65	8.20	136.04	3210.54
FTSE All-Share Finance and Credit Services (8)	11692.13	0.57	10041.80	11625.60	11561.60	10038.93	1.84	1.91	28.45	148.60	15929.85
FTSE All-Share Investment Banking and Brokerage Services (31)	9055.49	0.16	7777.33	9041.39	8930.54	8569.70	4.94	2.06	9.81	177.30	13054.51
FTSE All-Share Closed End Investments (191)	11362.08	-0.34	9758.34	11400.58	11350.33	11655.66	2.87	-2.25	-15.48	122.72	7202.88
FTSE All-Share Life Insurance (6)	7022.41	-1.09	6031.20	7099.48	7058.28	6283.34	4.58	0.57	38.05	215.96	8866.60
FTSE All-Share Nonlife Insurance (6)	3627.75	1.23	3115.70	3583.56	3540.53	3384.47	4.63	1.24	17.47	56.37	7848.30
FTSE All-Share Real Estate Investment and Services (10)	2163.08	-1.09	1857.76	2186.88	2188.99	2450.46	2.28	3.07	14.28	21.39	6540.52
FTSE All-Share Real Estate Investment Trusts (44)	2014.95	-1.37	1730.54	2042.91	2044.88	2618.36	4.78	0.48	43.77	36.73	3121.53
FTSE All-Share Automobiles and Parts (3)	1685.11	0.47	1447.26	1677.23	1662.45	2102.80	0.25	-26.35	-14.97	0.00	1753.10
FTSE All-Share Consumer Services (1)	3555.60	2.03	3053.74	3484.72	3446.81	2836.15	1.46	1.37	49.87	36.27	4562.50
FTSE All-Share Household Goods and Home Construction (11)	9907.92	1.44	8509.44	9767.20	9921.65	10445.17	6.93	1.95	7.39	266.65	9174.64
FTSE All-Share Leisure Goods (2)	26576.52	-0.21	22825.29	26631.43	26312.68	17702.34	3.38	1.14	25.86	666.68	30497.44
FTSE All-Share Personal Goods (4)	30315.69	-0.36	26036.68	30425.95	30252.81	22478.84	1.87	2.79	19.19	21.42	23862.69
FTSE All-Share Media (11)	9932.49	0.02	8530.54	9930.93	9839.12	9124.14	2.35	2.00	21.34	128.39	7074.99
FTSE All-Share Retailers (22)	2224.75	-0.14	1910.73	2227.84	2209.44	2060.09	2.50	3.23	12.38	8.10	2916.11
FTSE All-Share Travel and Leisure (29)	7467.90	-0.56	6413.81	7510.03	7502.56	6179.33	0.67	-7.91	-18.84	24.25	7751.45
FTSE All-Share Beverages (5)	27598.25	-2.08	23702.80	28183.74	27917.81	28284.48	2.22	2.34	19.26	220.38	22312.30
FTSE All-Share Food Producers (8)	6797.72	0.10	5838.23	6790.65	6813.15	6274.96	2.23	2.15	20.83	2.98	6624.47
FTSE All-Share Tobacco (2)	30052.80	-0.49	25810.90	30199.73	30476.12	34667.69	8.01	1.52	8.19	675.92	29188.40
FTSE All-Share Construction and Materials (15)	8530.64	-0.23	7326.55	8550.44	8467.31	7143.26	2.95	0.53	63.84	166.90	10618.10
FTSE All-Share Aerospace and Defense (8)	6733.49	0.85	5783.07	6676.68	6811.69	4754.34	1.83	0.20	272.35	74.85	8304.91
FTSE All-Share Electronic and Electrical Equipment (11)	12115.68	0.30	10405.57	12079.36	12015.50	10358.68	1.48	2.34	28.99	46.94	12050.44
FTSE All-Share General Industrials (7)	5183.75	-0.33	4452.07	5201.17	5151.92	4839.38	3.33	1.34	22.40	70.97	6955.75
FTSE All-Share Industrial Engineering (6)	15902.33	-0.28	13657.74	15946.92	15989.46	14699.86	1.97	2.38	21.31	210.47	21632.53
FTSE All-Share Industrial Support Services (29)	10044.74	0.02	8626.94	10042.83	10023.18	9673.58	2.05	1.62	30.06	70.31	11651.90
FTSE All-Share Industrial Transportation (8)	5197.50	0.74	4463.88	5159.08	5164.35	4650.68	2.21	1.59	28.42	14.93	5465.18
FTSE All-Share Industrial Materials (1)	19003.55	-1.94	620.04	19378.62	19503.64	13302.48	1.79	1.34	41.73	231.04	24307.84
FTSE All-Share Industrial Metals and Mining (8)	6737.43	0.62	5786.46	6695.73	6917.46	7457.45	7.25	3.54	3.89	242.91	10691.72
FTSE All-Share Precious Metals and Mining (5)	10671.77	0.43	9165.47	10625.66	10823.31	9730.95	3.51	1.61	17.72	131.63	7623.28
FTSE All-Share Chemicals (7)	12779.10	-0.62	10975.35	12858.33	12798.85	13850.61	2.77	1.77	20.39	100.06	12936.55
FTSE All-Share Oil. Gas and Coal (13)	8358.66	0.94	7178.85	8280.72	8361.92	7600.70	3.87	1.78	14.54	118.83	10689.91
FTSE Sector Indices											
Non Financials (324)	**5152.09**	**0.25**	**4610.24**	**5139.47**	**5149.18**	**4922.59**	**3.48**	**1.73**	**16.60**	**68.13**	**9460.18**

Hourly movements	8.00	9.00	10.00	11.00	12.00	13.00	14.00	15.00	16.00	High/day	Low/day
FTSE 100	7762.95	7751.83	7768.16	7764.89	7751.59	7741.40	7746.30	7760.52	7752.60	7772.54	7739.97
FTSE 250	19291.99	19257.15	19263.52	19233.31	19226.57	19232.82	19256.62	19243.74	19193.35	19303.52	19188.37
FTSE SmallCap	6242.84	6244.51	6246.17	6244.96	6243.41	6244.58	6249.37	6248.47	6241.23	6253.29	6241.23
FTSE All-Share	4230.85	4224.74	4232.42	4229.99	4223.68	4219.23	4222.27	4228.40	4223.10	4234.63	4218.61

Time of FTSE 100 Day's high:09:10:30 Day's Low12:02:00 FTSE 100 2010/11 High: 8014.31(20/02/2023) Low: 7335.40(17/03/2023)

Time of FTSE All-Share Day's high:09:08:00 Day's Low12:02:00 FTSE 100 2010/11 High: 4377.36(16/02/2023) Low: 4007.66(17/03/2023)

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UK RIGHTS OFFERS

Issue price	Amount paid up	Latest renun. date	High	Low	Stock	closing Price p	+or-

There are currently no rights offers by any companies listed on the LSE.

FT 30 INDEX

	May 12	May 11	May 10	May 09	May 08	Yr Ago	High	Low
FT 30	2839.10	2833.90	2829.80	2840.10	2848.20	0.00	2895.30	2454.10
FT 30 Div Yield	-	-	-	-	-	0.00	3.93	2.74
P/E Ratio net	-	-	-	-	-	0.00	19.44	14.26

FT 30 hourly changes

8	9	10	11	12	13	14	15	16	High	Low
2833.9	2848.2	2852.6	2847.4	2845.8	2842.4	2842.9	2836.8	2836.1	2853.1	2833.9

FT30 constituents and recent additions/deletions can be found at www.ft.com/ft30

FT WILSHIRE 5000 INDEX SERIES

	May 11		May 11
FT Wilshire 5000	41569.91	FT Wilshire Mid Cap	5353.96
FT Wilshire 2500	5333.37	FT Wilshire Small Cap	4781.03
FT Wilshire Mega Cap	5419.94	FT Wilshire Micro Cap	4351.20
FT Wilshire Large Cap	5410.06		

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FTSE GLOBAL EQUITY INDEX SERIES

May 12 Regions & countries	No of stocks	US $ indices	Day %	Mth %	YTD %	Total retn	YTD %	Gr Div Yield
FTSE Global All Cap	9502	727.51	-0.3	0.2	6.9	1178.37	7.9	2.3
FTSE Global All Cap	9502	727.51	-0.3	0.2	6.9	1178.37	7.9	2.3
FTSE Global Large Cap	1937	658.93	-0.2	0.7	8.4	1100.44	9.4	2.3
FTSE Global Mid Cap	2227	911.56	-0.6	-0.9	3.2	1388.31	4.0	2.2
FTSE Global Small Cap	5338	926.84	-0.7	-1.3	2.8	1348.62	3.6	2.2
FTSE All-World	4164	429.57	-0.3	0.4	7.4	736.94	8.4	2.3
FTSE World	2657	781.87	-0.3	0.5	8.0	1800.51	9.0	2.3
FTSE Global All Cap ex UNITED KINGDOM In	9221	767.19	-0.3	0.2	6.9	1218.38	7.8	2.2
FTSE Global All Cap ex USA	7711	522.28	-0.4	0.2	6.8	943.11	8.2	3.2
FTSE Global All Cap ex JAPAN	8080	757.67	-0.3	0.0	6.9	1237.78	7.8	2.2
FTSE Global All Cap ex Eurozone	8859	764.87	-0.3	0.3	6.4	1211.21	7.3	2.2
FTSE Developed	2148	718.42	-0.3	0.7	8.1	1171.67	9.1	2.1
FTSE Developed All Cap	5779	744.76	-0.3	0.5	7.6	1196.52	8.6	2.1
FTSE Developed Large Cap	816	679.59	-0.2	1.0	9.3	1128.35	10.3	2.1
FTSE Developed Europe Large Cap	205	423.92	-0.5	0.4	12.0	857.35	14.2	3.1
FTSE Developed Europe Mid Cap	346	628.64	-0.6	1.0	11.0	1095.34	12.3	3.0
FTSE Dev Europe Small Cap	737	859.30	-0.7	1.0	7.4	1441.43	8.9	3.1
FTSE North America Large Cap	234	897.66	-0.1	1.1	9.3	1359.05	9.9	1.7
FTSE North America Mid Cap	413	1104.94	-0.6	-2.0	1.1	1547.72	1.7	1.8
FTSE North America Small Cap	1320	1078.23	-0.7	-2.0	1.6	1446.67	2.1	1.7
FTSE North America	647	581.11	-0.2	0.5	7.7	899.57	8.3	1.7
FTSE Developed ex North America	1501	283.91	-0.4	0.9	9.1	553.33	10.9	3.0
FTSE Japan Large Cap	175	402.27	-0.1	3.8	8.4	599.48	9.7	2.5
FTSE Japan Mid Cap	339	564.07	-0.3	4.1	6.6	799.22	7.9	2.5
FTSE Global wi JAPAN Small Cap	908	628.41	-0.3	3.5	5.7	925.86	7.2	2.7
FTSE Japan	514	165.46	-0.1	3.9	8.1	276.16	9.4	2.5
FTSE Asia Pacific Large Cap ex Japan	1124	680.95	-0.3	-2.2	1.4	1253.34	2.1	3.2
FTSE Asia Pacific Mid Cap ex Japan	839	992.75	-0.4	-0.2	3.2	1764.58	3.9	3.2
FTSE Asia Pacific Small Cap ex Japan	2098	552.72	-0.6	-2.4	3.5	952.44	4.1	2.9
FTSE Asia Pacific Ex Japan	1963	543.74	-0.3	-2.0	1.6	1063.81	2.3	3.2
FTSE Emerging All Cap	3723	714.85	-0.2	-1.7	1.5	1259.45	2.3	3.6
FTSE Emerging Large Cap	1121	658.25	0.0	-1.8	1.2	1165.96	2.0	3.6
FTSE Emerging Mid Cap	895	1046.24	-0.6	-1.0	2.4	1860.45	3.6	3.7
FTSE Emerging Small Cap	1707	772.73	-0.6	-1.6	2.6	1301.07	3.4	3.4
FTSE Emerging Europe	147	128.70	2.9	-2.5	0.1	274.25	1.8	3.1
FTSE Latin America All Cap	252	755.98	-0.1	1.8	8.3	1543.77	10.8	9.0
FTSE Middle East and Africa All Cap	330	705.50	-0.5	0.3	-2.6	1320.01	-0.6	3.6
FTSE Global wi UNITED KINGDOM All Cap In	281	339.61	-0.9	0.5	8.1	707.16	9.9	3.6
FTSE Global wi USA All Cap	1791	991.88	-0.2	0.3	7.1	1447.12	7.7	1.6
FTSE Europe All Cap	1470	477.31	-0.5	0.5	11.3	925.17	13.3	3.1
FTSE Eurozone All Cap	643	470.80	-0.6	-0.6	13.7	903.80	15.5	3.0
FTSE EDHEC-Risk Efficient All-World	4164	475.61	-0.5	-1.0	2.7	758.10	3.6	2.7
FTSE EDHEC-Risk Efficient Developed Europe	551	345.26	-0.7	0.1	10.1	617.15	11.7	3.1
Oil & Gas	133	384.49	-1.1	-6.3	-5.9	802.46	-4.6	5.1
Oil & Gas Producers	88	386.17	-1.1	-6.4	-5.2	828.54	-3.8	5.4

May 12 Sectors	No of stocks	US $ indices	Day %	Mth %	YTD %	Total retn	YTD %	Gr Div Yield
Oil Equipment & Services	25	258.40	-1.4	-5.4	-7.0	487.53	-5.7	4.8
Basic Materials	404	604.25	-1.4	-3.4	1.1	1132.56	2.6	4.2
Chemicals	201	816.07	-0.5	-1.6	4.7	1463.46	5.8	3.1
Forestry & Paper	19	237.63	-0.1	-2.1	-5.7	492.64	-3.6	4.2
Industrial Metals & Mining	104	495.75	-2.0	-7.6	0.3	967.66	1.9	4.7
Mining	80	947.86	-2.7	-3.7	-3.0	1890.29	-0.9	5.5
Industrials	810	513.36	-0.4	0.4	5.3	827.77	6.2	2.1
Construction & Materials	163	621.81	-0.3	4.4	11.6	1059.15	12.8	2.2
Aerospace & Defense	36	918.75	-0.9	-3.7	1.5	1443.54	2.1	1.5
General Industrials	78	255.90	-0.6	1.9	7.2	458.51	8.5	2.5
Electronic & Electrical Equipment	158	634.62	-0.4	-1.1	5.8	918.47	6.5	1.6
Industrial Engineering	159	1030.15	-0.6	1.2	4.8	1658.40	5.9	2.1
Industrial Transportation	129	940.54	-0.6	-0.6	4.3	1553.09	5.5	3.4
Support Services	87	521.47	0.1	0.7	3.2	782.41	3.9	1.6
Consumer Goods	563	590.06	0.2	1.0	9.7	1005.36	10.9	2.3
Automobiles & Parts	132	512.07	0.3	-1.6	17.5	840.43	19.1	2.2
Beverages	71	820.46	0.3	2.2	5.9	1408.30	6.6	2.2
Food Producers	138	766.93	0.1	1.9	6.4	1342.81	7.9	2.4
Household Goods & Home Construction	61	580.34	0.0	3.7	8.0	991.02	9.3	2.5
Leisure Goods	54	256.33	0.6	1.0	11.6	365.23	12.3	1.2
Personal Goods	94	1042.80	0.4	1.4	12.8	1618.74	13.5	1.7
Tobacco	13	951.55	-0.7	-1.5	-4.6	2781.82	-3.1	6.6
Health Care	337	738.44	-0.3	0.2	1.4	1188.02	2.2	1.8
Health Care Equipment & Services	131	1395.94	-0.3	-0.6	1.2	1720.18	1.5	1.0
Pharmaceuticals & Biotechnology	206	502.25	-0.2	0.7	1.5	871.62	2.6	2.3
Consumer Services	424	563.73	0.1	1.4	9.8	809.80	10.3	1.2
Food & Drug Retailers	69	306.96	-0.5	-2.0	-2.4	493.75	-1.3	2.5
General Retailers	139	978.80	0.7	2.8	9.9	1344.52	10.4	1.0
Media	75	323.95	-1.2	-2.5	11.8	468.35	12.4	1.3
Travel & Leisure	141	504.28	-0.3	2.5	13.9	740.65	14.4	1.1
Telecommunication	83	134.01	-0.3	-2.6	4.1	322.27	6.0	4.2
Fixed Line Telecommuniations	29	105.78	-0.7	-4.4	5.1	293.19	7.1	5.0
Mobile Telecommunications	54	157.45	-0.1	-1.5	3.6	325.62	5.3	3.8
Utilities	201	327.95	-0.8	0.0	1.8	778.89	3.1	3.3
Electricity	145	366.89	-0.7	-0.1	0.4	856.77	1.5	3.2
Gas Water & Multiutilities	56	332.87	-1.0	0.2	5.4	821.35	7.0	3.7
Financials	854	257.82	-0.4	-0.2	-0.7	503.94	0.8	3.4
Banks	271	191.62	-0.4	-0.2	-3.3	420.09	-1.3	4.5
Nonlife Insurance	72	376.33	-0.3	0.9	2.9	640.95	4.8	3.0
Life Insurance	51	220.22	-0.5	-0.4	-3.3	430.73	-2.1	4.1
Financial Services	213	433.10	-0.1	-0.2	2.1	663.09	2.7	1.8
Technology	355	550.64	0.0	2.9	24.5	721.53	24.9	0.9
Software & Computer Services	180	840.80	0.4	4.8	24.0	1019.45	24.3	0.6
Technology Hardware & Equipment	175	482.34	-0.4	0.9	25.0	681.35	25.5	1.3
Alternative Energy	20	154.09	-1.3	-7.3	-15.8	221.18	-15.8	0.3
Real Estate Investment & Services	140	244.65	-0.3	-0.5	-2.5	482.17	-1.5	3.4
Real Estate Investment Trusts	107	434.33	-0.9	-1.0	-0.3	1035.53	1.0	4.1
FTSE Global Large Cap	1937	658.93	-0.2	0.7	8.4	1100.44	9.4	2.3

The FTSE Global Equity Series, launched in 2003, contains the FTSE Global Small Cap Indices and broader FTSE Global All Cap Indices (large/mid/small cap) as well as the enhanced FTSE All-World index Series (large/mid cap) - please see https://research.ftserussell.com/Products/indices/Home/indexfiltergeis?indexName=GEISAC&currency=USD&rtn=CAP&segment=global-developed--emerging. The trade names Fundamental Index® and RAFI® are registered trademarks and the patented and patent-pending proprietary intellectual property of Research Affiliates, LLC (US Patent Nos. 7,620,577; 7,747,502; 7,778,905; 7,792,719; Patent Pending Publ. Nos. US-2006-0149645-A1, US-2007-0055598-A1, US-2008-0288416-A1, US-2010- 0063942-A1, WO 2005/076812, WO 2007/078399 A2, WO 2008/118372, EPN 1733352, and HK1099110). "EDHEC™" is a trade mark of EDHEC Business School As of January 2nd 2006, FTSE is basing its sector indices on the Industrial Classification Benchmark - please see www.ftse.com/icb. For constituent changes and other information about FTSE, please see www.ftse.com. © FTSE International Limited. 2013. All Rights reserved. "FTSE®" is a trade mark of the London Stock Exchange Group companies and is used by FTSE International Limited under licence.

FTSE SECTORS: LEADERS & LAGGARDS

Year to date percentage changes

Fixed Line Telecomms	27.43	Industrials	10.50	Oil & Gas	2.51
Aerospace & Defense	25.17	Health Care Eq & Srv	8.44	Oil & Gas Producers	2.37
Oil Equipment & Serv	23.70	Industrial Eng	7.68	FTSE 250 Index	1.78
Electronic & Elec Eq	19.79	Banks	7.64	Technology	1.33
Travel & Leisure	19.15	Media	7.57	Consumer Goods	0.61
General Retailers	17.61	Electricity	7.06	FTSE SmallCap Index	0.21
Construct & Material	17.30	Health Care	6.00	Beverages	31.66
Food & Drug Retailer	16.96	Pharmace & Biotech	5.84	Real Est Invest & Tr	-0.97
Food Producers	15.76	Mobile Telecomms	5.76	Chemicals	-1.26
Leisure Goods	15.22	Software & Comp Serv	5.62	Beverages	-1.27
Household Goods & Ho	15.12	Real Est Invest & Se	5.59	Equity Invest Instr	-1.89
Consumer Services	14.83	Personal Goods	5.03	Life Insurance	-2.09
Gas Water & Multi	14.30	FTSE 100 Index	4.06	Industrial Transport	-3.54
Automobiles & Parts	12.63	Support Services	3.74	Nonlife Insurance	-3.72
Utilities	12.35	FTSE All{HY-}Share Index	3.65	Tobacco	-15.69
Telecommunications	12.09	Financials	3.60	Basic Materials	-17.91
Financial Services	11.47	NON FINANCIALS Index	3.58	Mining	-19.59
		Industrial Metals &	3.54	Tech Hardware & Eq	-21.41

FTSE 100 SUMMARY

FTSE 100	Closing Price	Day's Change	FTSE 100	Closing Price	Day's Change
3I Group PLC	1828.5	30.00	Jd Sports Fashion PLC	173.25	4.65
Abrdn PLC	207.30	-0.80	Johnson Matthey PLC	1941.5	-0.50
Admiral Group PLC	2254	20.00	Kingfisher PLC	250.00	-3.30
Airtel Africa PLC	115.10	3.40	Land Securities Group PLC	614.40	-11.60
Anglo American PLC	2337.5	-10.00	Legal & General Group PLC	230.80	1.10
Antofagasta PLC	1397	15.00	Lloyds Banking Group PLC	45.56	-0.32
Ashtead Group PLC	4717	47.00	London Stock Exchange Group PLC	8554	50.00
Associated British Foods PLC	1915.5	7.50	M&G PLC	199.15	-1.15
Astrazeneca PLC	12010	86.00	Melrose Industries PLC	461.60	3.20
Auto Trader Group PLC	631.00	-1.80	Mondi PLC	1281	-17.50
Aviva PLC	412.70	-1.70	National Grid PLC	1162	7.50
B&M European Value Retail S.A.	491.60	2.90	Natwest Group PLC	261.30	1.40
Bae Systems PLC	988.00	6.00	Next PLC	6818	-34.00
Barclays PLC	153.90	0.42	Ocado Group PLC	441.40	-11.60
Barratt Developments PLC	500.40	4.40	Pearson PLC	822.80	11.80
Beazley PLC	604.00	17.50	Pershing Square Holdings LTD	2728	20.00
Berkeley Group Holdings (The) PLC	4353	24.00	Persimmon PLC	1337.5	33.50
BP PLC	483.00	5.30	Phoenix Group Holdings PLC	575.40	-0.40
British American Tobacco PLC	2709	-18.50	Prudential PLC	1156	-25.50
British Land Company PLC	371.10	-10.90	Reckitt Benckiser Group PLC	6490	36.00
Bt Group PLC	152.40	-0.15	Relx PLC	2491	-5.00
Bunzl PLC	3186	19.00	Rentokil Initial PLC	645.60	2.20
Burberry Group PLC	2516	-8.00	Rightmove PLC	560.20	-6.60
Centrica PLC	114.75	1.25	Rio Tinto PLC	4917.5	35.00
Coca-Cola Hbc AG	2561	15.00	Rolls-Royce Holdings PLC	148.30	2.40
Compass Group PLC	2157	43.00	Rs Group PLC	856.80	-9.20
Convatec Group PLC	222.00	3.60	Sage Group PLC	816.20	-1.00
Crh PLC	3937	-12.00	Sainsbury (J) PLC	289.30	2.00
Croda International PLC	6794	-58.00	Schroders PLC	468.80	-
Dcc PLC	4719	-23.00	Scottish Mortgage Investment Trust PLC	621.00	-5.60
Diageo PLC	3534.5	-85.00	Segro PLC	804.00	-5.40
Endeavour Mining PLC	2052	14.00	Severn Trent PLC	2933	-2.00
Entain PLC	1466	-7.50	Shell PLC	2409	22.00
Experian PLC	2751	8.00	Smith & Nephew PLC	1276	-0.50
F&C Investment Trust PLC	897.00	2.00	Smith (Ds) PLC	313.60	-3.20
Flutter Entertainment PLC	15920	-55.00	Smiths Group PLC	1661.5	9.00
Frasers Group PLC	777.00	-4.00	Smurfit Kappa Group PLC	2980	-42.00
Fresnillo PLC	681.20	-9.20	Spirax-Sarco Engineering PLC	11070	-45.00
Glaxosmithkline PLC	1470.2	25.40	Sse PLC	1889.5	27.50
Glencore PLC	432.30	4.70	St. James's Place PLC	1138	-7.00
Haleon PLC	343.00	0.15	Standard Chartered PLC	616.20	-3.80
Halma PLC	2443	10.00	Taylor Wimpey PLC	124.65	1.10
Hargreaves Lansdown PLC	804.00	0.40	Tesco PLC	275.70	2.10
Hiscox LTD	1170	7.00	Unilever PLC	4353.5	14.00
HSBC Holdings PLC	599.70	6.10	Unite Group PLC	912.00	-14.00
Imperial Brands PLC	1885	3.50	United Utilities Group PLC	1077	0.50
Informa PLC	699.60	-2.80	Vodafone Group PLC	89.86	-1.13
Intercontinental Hotels Group PLC	5266	-60.00	Weir Group PLC	1784	-3.50
International Consolidated Airlines Group S.A.	154.85	-0.15	Whitbread PLC	3210	-36.00
Intertek Group PLC	4118	-40.00	Wpp PLC	895.20	4.60

UK STOCK MARKET TRADING DATA

	May 12	May 11	May 10	May 09	May 05	Yr Ago
Order Book Turnover (m)	182.08	167.40	107.40	130.59	68.93	68.93
Order Book Bargains	496286.00	502398.00	564159.00	487705.00	487221.00	487221.00
Order Book Shares Traded (m)	1496.00	1875.00	3729.00	2056.00	2882.00	2882.00
Total Equity Turnover (£m)	6477.62	12265.54	10751.60	9830.28	7824.39	7824.39
Total Mkt Bargains	683233.00	691711.00	762702.00	685284.00	669107.00	669107.00
Total Shares Traded (m)	5286.00	5393.00	8214.00	6849.00	7453.00	7453.00

† Excluding intra-market and overseas turnover. *UK only total at 6pm. ‡ UK plus intra-market turnover. (u) Unavaliable. (c) Market closed.

All data provided by Morningstar unless otherwise noted. All elements listed are indicative and believed accurate at the time of publication. No offer is made by Morningstar or the FT. The FT does not warrant nor guarantee that the information is reliable or complete. The FT does not accept responsibility and will not be liable for any loss arising from the reliance on or use of the listed information.
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UK COMPANY RESULTS

Company		Turnover		Pre-tax		EPS(p)		Div(p)		Pay day	Total	
3i Group	Pre			**4575.000**	4018.000	**475.000**	415.400	**29.75000**	27.25000	Jul 28	**53.000**	46.500
Armadale Capital	Pre	**0.000**	0.000	**0.206L**	0.333L	**0.040L**	0.070L	**0.00000**	0.00000	-	**0.000**	0.000
Baillie Gifford European Growth Trust	Int			**69.167**	142.976L	**21.220**	39.440L	**0.00000**	0.00000	-	**0.700**	0.350
Block Energy	Pre	**8.262**	6.114	**1.608L**	4.783L	**0.002L**	0.008L	**0.00000**	0.00000	-	**0.000**	0.000
Character Group (The)	Int	**57.887**	90.947	**0.201**	6.541	**0.850L**	25.210	**8.00000**	7.00000	Jul 28	**18.000**	16.000
CMO Group	Pre	**83.073**	76.340	**0.175**	4.422L	**0.510**	7.110L	**0.00000**	0.00000	-	**0.000**	0.000
Grainger	Int	**109.600**	125.500	**5.700**	98.800	**0.600**	10.200	**2.28000**	2.08000	Jul 3	**6.170**	5.400
ImmuPharma	Pre	**0.000**	0.118	**4.456L**	8.941L	**1.200L**	3.250L	**0.00000**	0.00000	-	**0.000**	0.000
Ingenta	Pre	**10.451**	10.145	**1.199**	0.727	**9.020**	10.930	**0.00000**	2.00000	-	**1.200**	3.000
Polar Capital Global Healthcare Trust	Int			**8.890**	19.615	**6.970**	15.990	**0.00000**	1.00000	-	**1.100**	2.000
TBC Bank Group	1st	**547.596**	427.190	**296.291**	248.106	**4.570**	4.110	**0.00000**	0.00000	-	**567.200**	401.400

Figures in £m. Earnings shown basic. Figures in light text are for corresponding period year earlier.
For more information on dividend payments visit www.ft.com/marketsdata

UK RECENT EQUITY ISSUES

Issue date	Issue price(p)	Sector	Stock code	Stock	Close price(p)	+/-	High	Low	Mkt Cap (£m)
05/10	8.50	AIM	GMET	Golden Metal Resources PLC	8.13	-0.08	8.80	7.95	0.0
05/03	100.00		AWEM	Ashoka WhiteOak Emerging Markets Trust plc	105.00	2.00	105.00	98.50	0.0
04/11	2.50		SCSP	Seed Capital Solutions PLC	0.88	0.00	0.78	0.76	162.2
04/06	144.00	AIM	FADL	Fadel Partners Inc	147.00	0.00	150.00	144.00	2935.3
04/06	6.25		CHSS	World Chess PLC	9.50	0.00	11.50	6.55	6335.6
04/04	16.00	AIM	OHT	Ocean Harvest Technology Group PLC	21.00	-0.69	27.00	16.00	2643.0

§Placing price. *Intoduction. ‡When issued. Annual report/prospectus available at www.ft.com/ir
For a full explanation of all the other symbols please refer to London Share Service notes.

MARKET DATA

FT500: THE WORLD'S LARGEST COMPANIES

Stock	Price	+/-Week	52 Week High	52 Week Low	Yld	P/E	MCap m
Australia (A$)							
ANZ Bank	24.50	1.04	26.08	20.78	6.20	10.20	48950.88
BHP Group	43.48	-0.49	50.09	35.83	9.51	10.14	146529.62
CmwBkAu	98.96	3.20	111.38	86.98	3.56	18.49	111021.34
CSL	306.36	6.26	314.21	254.30	0.99	43.57	98310.02
NatAusBk	26.41	-0.31	32.83	25.43	3.42	13.97	55144.46
Telstra	4.32	-0.01	4.40	3.62	2.33	34.91	33206.15
Wesfarmers	51.69	0.13	52.79	40.03	3.47	26.40	38994.45
Westpac Bank	21.09	-0.16	24.61	18.80	4.24	15.24	49232.91
Woolworths	38.66	-0.21	39.88	31.67	2.81	43.80	31343.35
Belgium (€)							
AnBshInBv	56.28	-2.44	62.01	45.56	0.91	29.12	106201.84
KBC Grp	61.48	-1.90	72.46	45.53	5.39	10.37	27859.63
Brazil (R$)							
Ambev	14.36	-0.13	16.88	12.60	3.86	22.07	45935.03
Bradesco	13.27	0.41	17.71	11.15	6.14	6.25	14362.35
Cielo	5.55	-0.07	6.22	3.02	2.58	19.12	3061.66
ItauHldFin	22.84	1.00	26.04	18.86	3.33	9.20	22994.86
Petrobras	29.38	2.59	42.08	23.61	16.04	4.26	44398.7
Vale	67.83	-1.21	94.48	61.90	18.80	3.08	62515.16
Canada (C$)							
Bausch Hlth	7.66	-0.12	14.54	5.10	-	-2.33	2048.56
BCE	64.02	-0.42	69.50	55.66	5.39	21.71	43158.19
BkMontrl	118.09	0.36	138.85	113.47	3.78	9.20	62243.1
BkNvaS	66.25	-0.69	86.22	63.19	5.52	8.40	58664.59
Brookfield	58.88	10.36	63.88	41.28	1.09	19.91	69948.82
CanadPcR	111.12	2.73	111.43	86.42	0.67	26.95	76460.95
CanImp	56.30	0.74	71.10	53.58	10.52	3.95	37953.23
CanNatRs	74.75	-2.34	87.92	58.75	2.64	11.73	60572.64
CanNatRy	163.49	0.42	175.39	137.26	1.48	24.06	80388.38
Enbridge	52.17	-1.26	59.69	48.88	6.31	18.43	78072.88
GtWesLif	38.22	-0.31	39.12	27.99	4.98	10.88	26302.64
ImpOil	61.08	-1.26	79.83	52.67	1.66	17.80	26369.12
Manulife	25.76	-0.73	27.50	20.81	4.48	7.38	35141.55
Nutrien	80.79	-6.24	134.19	79.15	2.84	11.75	29660.14
RylBkC	129.67	-1.41	140.18	116.75	3.39	11.67	133268.99
SHOP	83.73	0.69	87.53	33.00	-	2.93	82741.43
Suncor En	38.94	-0.74	53.62	36.39	2.66	14.25	37952.87
ThmReut	167.40	7.03	180.93	119.23	1.21	11.68	58250.13
TntoDom	82.02	-1.28	97.13	76.40	3.93	10.41	110969.1
TrnCan	55.88	-0.06	74.44	50.70	6.14	30.46	42237.75
China (HK$)							
AgricBkCh	3.07	-0.08	3.28	2.20	7.13	3.91	12032.1
Bk China	3.21	-0.03	3.45	2.51	7.11	3.86	34224.93
BkofComm	5.19	-0.18	5.65	3.83	6.92	4.16	23168.75
BOE Tech	0.69	0.02	0.85	0.55	-	10.80	17.50
Ch Coms Cons	4.93	-0.44	5.52	3.09	4.24	3.97	2777.41
Ch Evrbrght	2.55	-0.04	2.86	2.03	9.64	3.35	4122.24
Ch Rail Cons	6.36	-0.91	7.46	3.75	4.23	3.28	1683.71
Ch Rail Gp	5.43	-0.75	6.30	3.41	3.89	4.24	2912.94
ChConstBk	5.31	-0.05	5.90	4.10	7.18	3.75	162772.14
China Vanke	11.68	-0.08	19.90	9.87	12.52	5.11	3286.03
ChinaCitic	4.25	-0.15	4.74	2.92	6.78	3.83	8064.5
ChinaLife	14.68	-0.72	15.84	8.53	4.78	6.23	13927.94
ChinaMBank	39.50	0.10	53.00	25.40	3.71	7.07	23121.48
ChinaMob	66.00	-2.45	70.20	46.80	5.01	9.89	172184.52
ChinaPcIns	23.95	-1.60	26.50	12.10	5.63	7.58	8474.93
ChMinsheng	3.26	-0.06	3.52	2.19	7.74	4.09	3458.41
ChMrchSecs	14.42	0.07	15.98	12.12	3.14	12.41	15398.66
Chna Utd Coms	5.26	-0.18	6.45	3.30	2.21	25.43	23434.81
ChShenEgy	27.45	1.20	28.70	20.50	7.66	8.08	11821.05
ChShpbldng	4.53	-0.35	5.32	3.37	-	-324.63	14393.56
ChStConEng	6.53	-0.47	7.35	4.68	3.41	4.88	38821.75
ChUncHK	6.25	0.19	6.58	3.27	2.58	13.37	24383.34
CNNC Intl	7.16	0.00	7.44	5.78	1.81	18.04	19439.18
CSR	4.69	-0.41	5.26	2.37	4.53	12.51	2613.85
Daqin	7.74	-0.22	8.21	5.95	6.44	11.30	16556.15
GuosenSec	9.60	0.02	10.55	8.43	2.49	10.63	12192.37
HaitongSecs	5.45	-0.03	6.01	3.77	5.42	5.75	2369.28
Hngzh HikVDT	35.45	-1.75	48.84	26.80	2.34	18.78	46459.27
Hunng Pwr	4.92	-0.03	5.16	2.62	4.12	-5.36	2948.6
IM Baotou Stl	1.83	0.01	2.71	1.75	-	30.03	8340.61
In&CmBkCh	4.33	-0.04	4.73	3.37	7.21	3.85	47918.12
IndstrlBk	17.03	0.27	21.00	14.91	4.73	4.50	50902.14
Kweichow	1706.4	-43.50	2077	1333	1.17	37.05	308414.92
Midea	0.40	-0.01	0.49	0.32	-	-4.16	15.16
New Ch Life Ins	22.85	-1.15	25.00	12.04	6.88	4.21	3012.81
PetroChina	5.37	0.07	5.62	2.95	4.57	10.51	14446.21
PingAnIns	55.90	-3.35	63.10	31.30	4.60	8.63	53082.01
PngAnBnk	12.62	-0.11	15.27	10.22	1.43	7.27	35235.62
Pwr Cons Corp	7.20	-0.60	8.45	6.76	1.28	14.43	11386.32
SaicMtr	14.01	0.06	19.29	13.72	4.40	6.76	23550.82
ShenwanHong	0.12	-0.01	0.18	0.07	-	3.50	137.07
ShgPdgBk	7.62	-0.06	8.22	6.63	6.27	4.70	32180.55
Sinopec Corp	5.13	0.04	5.47	3.06	2.79	6.00	16208.96
Sinopec Oil	2.16	-0.13	2.39	1.81	-	692.25	4217.09
Denmark (kr)							
DanskeBk	140.25	4.45	165.35	86.90	1.38	9.95	17637.95
MollerMrsk	12110	290.00	22650	11100	2.71	2.05	14789.59
NovoB	1175.6	81.60	1178	720.40	0.77	58.73	298808.78

Stock	Price	+/-Week	52 Week High	52 Week Low	Yld	P/E	MCap m
Finland (€)							
Nokia	3.76	0.00	5.20	3.66	-	13.46	23019.26
SampoA	45.75	0.09	49.97	39.86	3.60	10.10	25393.47
France (€)							
Airbus Grpe	122.80	0.60	129.68	86.52	-	23.35	105431.87
AirLiquide	163.70	0.30	164.52	114.48	1.62	31.33	93114.74
AXA	26.95	-1.92	30.34	20.34	5.12	9.41	67119.64
BNP Parib	58.49	0.60	67.02	40.67	4.41	8.74	78422.83
ChristianDior	833.00	-1.50	872.00	521.50	0.81	31.54	163331.26
Cred Agr	11.72	0.66	11.94	8.09	6.58	6.64	38515.68
Danone	59.09	-1.30	61.88	46.76	3.16	20.85	43379.6
EDF	12.00	0.00	12.05	7.27	3.92	9.57	52152.09
Engie SA	14.87	0.31	15.56	10.07	3.44	10.86	39330.68
EssilorLuxottica	186.14	2.28	188.28	132.70	0.56	58.88	90519.97
Hermes Intl	1975.4	-18.40	2027	957.60	0.22	87.96	226528.15
LOreal	421.10	-3.35	442.60	300.45	0.92	53.21	245159.74
LVMH	885.40	8.50	904.60	535.00	0.76	38.45	482852.11
Orange	11.56	-0.08	11.94	9.08	5.00	3980.67	33408.18
PernodRic	214.10	-0.40	218.00	166.60	1.40	33.53	59989.71
Renault	33.56	0.76	43.96	22.13	-	-25.99	10778.8
Safran	140.00	2.30	143.68	87.85	0.30	1452.44	64975.53
Sanofi	99.30	-2.26	105.18	76.45	3.11	20.82	136140.1
Sant Gbn	53.51	1.41	58.53	35.18	2.45	13.28	29980.43
Schneider	158.16	-0.48	159.80	110.02	1.58	28.94	98114.33
SocGen	22.06	0.44	28.39	18.97	2.42	3.87	19366.81
Total	55.76	-0.37	60.93	45.81	4.67	11.11	150833.15
UnibailR	49.68	0.09	73.09	39.68	-	-7.44	7615.7
Vinci	109.24	0.16	112.40	80.84	2.37	25.13	70072.25
Vivendi	9.72	-0.10	11.45	7.59	5.95	-18.01	11646.91
Germany (€)							
Allianz	212.00	-3.95	228.40	156.22	4.36	13.89	92877
BASF	47.10	-0.43	53.77	37.90	6.75	8.09	45731.67
Bayer	53.73	-4.97	67.49	46.70	3.59	54.65	57338.31
BMW	99.41	-8.13	109.84	68.44	1.84	5.49	65005.8
Continental	66.48	2.44	79.24	44.31	-	10.63	14443.19
Deut Bank	9.62	-0.05	12.09	7.25	-	9.81	21311.07
Deut Tlkm	21.66	0.25	23.13	17.33	2.67	25.83	117322.05
DeutsPost	41.18	-0.70	44.64	29.68	3.23	10.81	55425.23
E.ON	12.07	-0.04	12.29	7.28	3.75	6.96	34630.36
Fresenius Med	43.76	1.33	58.10	25.95	2.95	13.72	13927.73
Fresenius SE	27.65	2.23	34.32	19.69	3.14	9.07	16774.48
HenkelKgaA	68.16	1.20	69.68	56.55	2.59	18.81	19234.94
Linde	339.45	7.80	344.00	261.20	1.06	54.71	180800.52
Mercedes-Benz	67.86	1.18	75.92	50.19	1.92	7.04	78860.71
MuenchRkv	327.00	-11.10	342.90	212.70	2.89	16.21	48473.91
SAP	121.28	-0.90	124.60	79.58	1.47	28.21	161843.36
Siemens	150.10	-0.38	152.20	93.67	2.25	23.42	130436.67
Volkswgn	147.75	-5.25	217.00	144.35	3.13	5.18	47359.9
Hong Kong (HK$)							
AIA	79.75	-4.70	93.65	57.25	1.55	19.76	118154.35
BOC Hold	24.50	0.15	31.85	23.55	4.70	12.17	33027.46
Ch OSLnd&Inv	19.60	-0.06	25.60	14.40	5.68	4.71	27351.92
ChngKng	45.60	-0.60	57.00	42.90	3.60	10.10	20888.29
Citic Ltd	10.00	-0.28	10.86	7.01	4.98	4.48	37090.96
Citic Secs	16.72	-0.06	18.52	11.60	2.65	8.34	5585.61
CK Hutchison	51.80	-2.65	56.85	38.55	4.07	6.36	25296.15
CNOOC	12.62	0.24	13.36	9.22	3.32	10.66	71728.03
HangSeng	113.40	-0.60	141.40	108.30	4.98	17.67	27643.05
HK Exc&Clr	309.60	-12.20	404.20	208.20	2.74	33.80	50047.79
MTR	38.70	-0.90	43.70	33.15	2.94	27.13	30603.26
SandsCh	25.85	-1.30	30.20	12.50	-	-27.64	26675.21
SHK Props	103.20	-5.70	114.80	83.10	4.44	11.42	38129.89
Tencent	328.20	-9.60	397.60	188.69	0.45	12.51	401221.9
India (Rs)							
Bhartiartl	791.95	2.85	860.55	628.75	-	166.35	57522.25
HDFC Bk	1667.8	-60.00	1734.45	1271.6	-	27.82	113330.29
Hind Unilevr	2623.4	116.65	2741.6	2100	1.24	69.15	75016.5
HsngDevFin	2776.3	-85.75	2867	2026	0.84	23.25	61986.81
ICICI Bk	943.90	22.20	958.20	669.95	0.22	29.46	80263.97
Infosys	1245.2	-28.35	1672.6	1185.3	2.48	24.21	62873.12
ITC	420.45	-4.15	433.45	253.00	2.60	34.37	63594.04
L&T	2221.1	-135.80	2416.35	1456.35	0.82	36.25	37989.44
OilNatGas	165.50	4.50	169.00	119.85	5.60	4.61	25338.95
RelianceIn	2484.35	36.35	2817.35	2180	0.29	27.97	204574.59
SBI NewA	578.15	-1.85	629.55	430.70	0.70	15.86	62795.71
SunPhrmInds	956.00	-18.00	1070.95	789.90	0.80	35.05	27915.72
Tata Cons	3274.3	53.60	3575	2926.1	1.13	30.77	145809.87
Israel (ILS)							
TevaPha	30.59	-1.41	38.39	23.83	-	23.69	9315.74
Italy (€)							
Enel	6.06	-0.10	6.26	3.96	5.83	29.23	66901.74
ENI	13.39	-0.18	14.98	10.45	4.86	5.85	52427.22
Generali	18.72	-0.12	19.23	13.67	7.57	10.91	31707.3
IntSPaolo	2.43	0.00	2.60	1.58	1.45	78.07	48219.24
Unicred	18.87	-0.07	20.05	8.24	0.61	29.07	39785.31
Japan (¥)							
AstellasPh	2129	49.00	2205	1823.5	2.34	30.35	28474.72
Bridgestne	5538	52.00	5581	4548	3.24	11.93	29211.49
Canon	3222	-8.00	3516	2754.5	3.28	14.76	31760.74
CntJpRwy	17000	30.00	17920	14730	0.83	-30.18	25882.27

Stock	Price	+/-Week	52 Week High	52 Week Low	Yld	P/E	MCap m
Denso	8272	192.00	8330	6389	1.83	21.46	48171.76
EastJpRwy	8100	235.00	8280	6525	1.34	-7.70	22624.83
Fanuc	4560	-98.00	24930	4409	10.73	5.14	34023.39
FastRetail	31640	-330.00	33220	18840	1.79	14.06	74413.45
Fuji Hvy Ind	2252	41.50	2684	1938.5	2.69	24.50	12802.07
Hitachi	7848	113.00	7946	5983	1.59	10.89	54410.97
HondaMtr	3741	120.00	3776	2990.5	3.73	7.49	50083.55
JapanTob	3015	81.00	3049	2248.5	4.90	14.53	44565.98
KDDI	4415	142.00	4636	3825	2.94	14.01	75137.46
Keyence	65520	2110	65840	44880	0.33	51.84	117770.72
MitsbCp	5347	315.00	5460	3740	2.79	11.30	57629.38
MitsubEst	1012.91	6.75	1023.46	876.51	-	-	-
MitsubishiEle	1727	2.50	1788	1273	2.51	14.61	27406.37
MitsuiFud	912.85	19.70	1007.12	684.38	-	-	-
MitUFJFin	868.50	5.90	999.50	632.60	3.24	8.33	81440.26
Mizuho Fin	2009.5	13.50	2238	1486.5	4.20	9.10	37712
Murata Mfg	7817	11.00	8811	6438	1.66	14.86	39042.58
Nippon TT	4108	-77.00	4248	3674	2.77	12.24	109968.07
Nissan Mt	532.50	32.20	577.60	408.10	-	16.01	16610.84
Nomura	489.10	9.20	573.90	464.30	5.09	-31.14	11688.68
Nppn Stl	2859	-39.00	3294	1838	3.03	4.18	20080.33
Panasonic	1371	37.50	1383	1006.5	1.97	12.83	24866.12
Seven & I	6307	82.00	6619	5041	1.76	22.22	41319.91
ShnEtsuCh	3970	-25.00	21055	3797	7.90	3.52	59390.03
Softbank	4949	-221.00	7180	4514	0.96	3.94	53767.46
Sony	12780	195.00	12835	9213	0.51	15.11	119113.3
SumitomoF	5697	80.00	6261	3817	3.80	10.26	57881.19
Takeda Ph	4449	-131.00	4629	3497	4.38	14.78	52027.9
TokioMarine	2734	-3.50	3000	2200	8.71	4.11	40462.92
Toyota	1942	77.50	2267	1764	2.84	8.11	234165.1
Mexico (Mex$)							
AmerMvl	19.43	0.57	21.27	15.67	1.59	16.55	46544.07
FEMSA UBD	178.90	4.51	178.90	120.63	1.08	154.09	21947.93
WalMrtMex	73.51	1.06	79.15	64.81	0.65	38.59	72864.86
Netherlands (€)							
ASML Hld	596.60	11.00	637.50	375.75	0.54	47.78	261255.99
Heineken	103.65	-0.75	106.30	78.28	0.91	18.64	64851.92
ING	11.69	0.49	13.55	8.43	4.95	9.86	45969.29
Unilever	49.95	-0.48	50.93	40.28	2.87	25.64	157221.11
Norway (Kr)							
DNB	184.15	-1.25	209.50	168.20	10.56	10.53	26837.74
Equinor	302.15	-8.35	410.95	278.70	1.82	11.66	89672.86
Telenor	123.10	-4.90	135.80	87.60	8.17	18.61	16100.83
Qatar (QR)							
QatarNtBk	16.61	0.35	23.25	14.31	3.15	12.94	42147.58
Saudi Arabia (SR)							
AlRajhiBnk	75.60	1.50	7317	0.00	2.93	13.87	80635.68
Natnlcombnk	36.75	-12.95	1552.5	0.00	3.64	13.35	43882.07
SaudiBasic	93.00	3.10	2115	0.00	3.23	13.10	74396.04
SaudiTelec	45.65	3.10	8480	0.00	8.09	8.73	60863.4
Singapore (S$)							
DBS	30.66	-1.47	36.40	29.45	3.66	12.99	59100.25
JardnMt US$	50.73	2.09	59.48	42.60	3.12	9.17	14646.88
OCBC	12.25	-0.42	13.23	11.20	3.13	12.62	41151.71
SingTel	2.57	-0.02	2.86	2.31	2.66	44.83	31711.33
UOB	27.77	-0.28	31.40	25.91	3.26	12.77	34775.13
South Africa (R)							
Firstrand	61.69	-1.65	72.95	56.80	4.76	9.87	17895.22
MTN Grp	116.91	-1.21	176.83	107.35	-	14.09	11391.86
Naspers N	3160.23	-46.27	3510	1454.08	0.21	15.02	71173.37
South Korea (KRW)							
HyundMobis	225000	7000	239500	189500	1.84	8.49	15896.1
KoreaElePwr	19700	700.00	24000	16500	6.43	-11.13	9476.37
SK Hynix	87200	-1500.00	115000	60600	1.83	6.03	47567.95
SmsungEl	64100	-1000.00	79000	51800	2.33	10.73	286735.64
Spain (€)							
BBVA	6.60	0.31	7.56	3.97	5.43	9.32	43218.21
BcoSantdr	3.14	-0.01	3.87	2.32	2.35	6.53	56166.21
CaixaBnk	3.36	0.14	4.14	2.64	0.78	22.88	27340.47
Iberdrola	11.87	0.07	11.96	9.09	3.43	21.11	83082.87
Inditex	31.49	-0.18	32.10	19.57	0.68	34.45	106608.04
Repsol	13.16	0.16	16.23	11.19	4.39	8.32	18975.15
Telefonica	3.88	-0.15	5.06	3.22	8.60	2.94	24223.63
Sweden (SKr)							
AtlasCpcoB	132.25	1.30	134.30	22.08	5.82	8.44	19892.63
Ericsson	53.99	-1.37	82.25	53.36	4.40	7.61	15985.21
H & M	143.00	-1.72	157.30	98.27	4.64	18.83	20128.76
Investor	215.15	-2.75	221.95	158.20	1.72	8.84	37774.85
Nordea Bk	107.00	-2.22	134.94	88.32	14.41	11.93	37170.11
SEB	113.55	-0.75	133.50	99.42	9.38	9.07	23576.31
SvnskaHn	86.94	-0.78	112.90	80.88	6.07	8.15	16293.62
Swedbank	165.95	-6.00	219.90	124.50	9.25	8.47	18103.15
Telia Co	26.82	-0.47	41.24	25.54	7.87	9.04	10569.9
Volvo	206.60	1.25	219.75	154.28	3.32	12.86	31625.4
Switzerland (SFr)							
ABB	33.12	1.08	33.25	23.84	2.28	16.66	72548.49
CredSuisse	0.76	-0.01	6.76	0.66	11.85	-1.26	3411.6
Nestle	114.98	-1.48	124.10	103.42	2.17	20.93	342267.25
Novartis	92.53	-0.68	93.95	73.33	2.96	10.54	234946.22

Stock	Price	+/-Week	52 Week High	52 Week Low	Yld	P/E	MCap m
Richemont	154.70	6.75	161.10	90.28	1.15	38.68	90031.1
Roche	284.75	1.05	335.85	256.05	2.80	20.00	223038.88
Swiss Re	90.00	1.22	99.68	68.16	5.96	22.80	31857.69
Swisscom	590.40	-15.00	619.40	443.40	3.38	18.42	34097.63
UBS	17.24	-0.17	20.85	13.87	2.03	8.35	59669.08
Zurich Fin	427.20	-2.20	461.20	384.70	4.25	14.92	71661.28
Taiwan (NT$)							
Chunghwa Telecom	125.00	-1.50	130.50	105.50	3.50	26.60	31519.98
Formosa PetChem	84.50	-0.80	97.90	75.20	0.71	15.92	26165.14
HonHaiPrc	102.50	-2.50	116.00	98.00	4.00	10.10	46188.99
MediaTek	673.00	5.00	935.00	533.00	5.63	9.36	34993.49
TaiwanSem	496.00	-2.00	560.00	370.00	2.20	19.30	418096.04
Thailand (THB)							
PTT Explor	32.25	1.75	38.50	29.50	5.87	9.08	27098.86
United Arab Emirates (Dhs)							
Emirtestele	24.30	-	38.98	11.60	2.75	27.17	57535.64
United Kingdom (p)							
Anglo American	2337.5	-109.50	4036	2320	7.63	4.63	38990.24
AscBrFd	1915.5	-7.50	2076	1223	0.32	31.66	18586.22
AstraZen	12010	88.00	12828.45	9399	1.72	2033.53	232122.44
Aviva	412.70	-1.90	538.42	341.92	5.17	54.30	14203.28
Barclays	153.90	0.66	198.86	128.12	1.95	3.73	29843.27
BP	483.00	-9.30	570.57	359.20	3.26	17.52	106030.2
BrAmTob	2709	-95.00	3645	2697	7.96	9.16	75535.63
BT	152.40	-3.15	196.60	22.98	-	14.80	18876.2
Compass	2157	88.00	2161	1630.5	0.65	52.48	46936.94
Diageo	3534.5	-136.00	3960	3413.5	2.05	27.19	99268.49
GlaxoSmh	1470.2	7.80	2753.96	16.64	5.44	16.98	75077.54
Glencore	432.30	-11.80	584.50	395.40	2.05	15.83	67486.29
HSBC	599.70	-0.10	653.80	434.70	2.69	13.10	149395.13
Imperial Brands	1885	-15.00	2185	1646.5	7.33	6.30	21641.52
Jardine Mathes.	62.50	0.00	55.30	46.89	2.53	11.29	18045.13
LlydsBkg	45.56	-0.25	54.33	38.51	5.64	6.33	37339.8
LSE Group	8554	196.00	8893.86	6710	0.90	87.46	54025.45
Natl Grid	1162	11.50	1271.45	844.29	4.23	27.09	53288.06
Natwest Group	261.30	2.00	308.65	210.90	4.02	10.29	30909.73
Prudential	1156	-32.50	1336	782.40	1.02	18.77	39690.07
ReckittB	6490	56.00	6824	5502	2.69	-28.08	57973.68
RELX	2491	57.00	2735	2064	1.91	32.86	59045.39
RioTinto	4917.5	-74.50	6329	4424.5	10.22	5.14	76712.94
RollsRoyce	148.30	-2.85	160.00	64.44	-	100.88	15474.87
Shell PLC	2409	18.50	2613.5	1908.6	2.51	12.70	205510.36
StandCh	616.20	11.00	797.40	515.60	1.44	13.82	21698.59
Tesco	275.70	-7.30	307.23	194.35	3.32	14.04	25149.06
Unilever	4353.5	-45.50	4868.64	3407.5	3.33	22.35	137029.45
Vodafone	89.86	-5.16	132.10	1.04	8.61	-201.03	30249.74
WPP	895.20	6.20	1082	713.00	2.96	17.05	11996.69
United States of America ($)							
21stC Fox A	30.32	-1.65	37.26	28.02	1.43	13.33	8157.79
3M	99.81	-3.54	152.50	99.53	5.46	10.71	55062.4
AbbottLb	109.96	-1.30	118.23	93.25	1.51	30.31	191214.59
Abbvie	146.99	-1.04	168.11	134.09	3.26	24.75	259332.94
Accenture	273.54	7.89	322.88	242.80	1.24	30.17	181246.42
Activision Bli.	77.38	1.38	87.01	70.94	0.56	24.43	60689.13
Adobe	335.44	-12.97	451.15	274.73	-	35.84	153864.03
Advanced Micro	95.29	5.45	109.57	54.57	-	40.27	153451.38
AEP	91.55	-0.56	105.60	80.30	3.02	20.05	47044.44
Aflac	66.22	-1.37	74.02	52.07	1.84	11.26	40011.91
AirProd	276.86	-19.84	328.56	218.88	2.00	31.59	61496.9
Allstate	118.53	2.80	142.15	103.20	2.52	7.58	31154.52
Alphabet	117.30	11.73	122.43	83.34	-	1.14	696879.3
Altria	45.73	-0.96	54.89	40.35	7.09	37.07	81629.86
Amazon	110.75	5.10	146.57	81.43	-	1.86	1136334.17
AmerAir	14.02	0.15	18.22	11.65	-	-4.07	9149.87
AmerExpr	148.10	-4.55	182.15	130.65	1.16	15.62	110073.95
AmerIntGrp	52.36	-1.43	64.88	45.66	2.25	5.26	37895.68
AmerTower	198.24	1.49	282.47	178.17	2.42	38.04	92388.41
Amgen	231.85	-4.68	296.67	223.30	2.80	24.50	123883.62
Amphenol Corp	74.83	-0.88	82.86	61.67	0.96	32.38	44547.72
Analog Devices	181.01	-2.39	198.25	133.48	1.42	66.01	91561.74
Anthem	482.58	21.82	-	-	-	-	-
Aon Cp	336.30	7.90	338.27	246.21	0.54	65.81	68687.77
Apple	172.68	-0.89	176.15	124.17	0.46	31.10	2716032.26
Applied Materi.	116.38	0.32	125.62	71.12	0.75	17.44	98351.76
Aptiv	92.24	-1.19	124.88	77.96	-	51.64	24950.16
ArcherDan	75.09	-0.87	98.28	70.02	1.81	17.03	40896.63
AT&T	17.11	-0.02	21.53	14.46	11.19	6.73	122319.39
Autodesk	193.83	-1.12	235.01	163.20	-	93.09	41630.31
AutomData	212.25	-3.24	274.92	196.61	1.66	35.68	87683.24
AutoZone	2708.72	17.14	2750	1703.32	-	26.58	49834.14
Avago Tech	630.42	0.30	648.50	415.07	2.20	38.67	262837.02
BakerHu	27.72	-0.51	38.66	20.42	2.46	69.67	28057.62
Bank of NY	40.26	-0.91	52.26	36.22	2.97	10.56	31770.53
BankAm	27.08	-0.63	38.60	26.32	2.65	8.24	215804.66
Baxter	43.00	-3.06	77.08	37.35	2.32	18.46	21749.02
BectonDick	251.78	-1.88	269.06	215.90	1.23	47.31	71509.27
BerkshHat	491229.01	-610.99	506000	393012.25	-	8.97	287785.53
Biogen	308.45	-9.61	319.74	188.51	-	32.21	44645.76
BlackRock	650.57	6.09	785.65	503.12	2.34	18.49	97431.09
Boeing	200.86	2.52	221.33	113.02	-	-30.51	120836.07

Stock	Price	+/-Week	52 Week High	52 Week Low	Yld	P/E	MCap m
Booking Holdings	2639.27	69.97	2731.75	1616.85	-	101.76	97477.88
Bristol-Myers	68.08	-0.06	81.44	65.28	2.72	23.70	143025.67
Broadcom	630.42	0.30	648.50	415.07	2.20	38.67	262837.02
Cadence Design	201.11	-4.13	217.67	132.32	-	87.37	54840.13
CapOne	86.21	-1.80	128.95	83.93	2.14	3.47	32915.51
CardinalHlth	84.66	1.46	85.93	49.70	2.13	47.64	21554.45
Carnival	9.84	-0.17	14.96	6.11	-	-1.27	10981.58
Caterpillar	210.73	-4.36	260.50	160.60	1.87	19.35	108600.9
Centene Corp	66.72	-1.67	98.53	61.71	-	31.78	36613.88
CharlesSch	49.38	0.14	86.63	45.00	1.34	18.95	87360.24
Charter Comms	335.31	-15.54	515.66	297.66	-	14.88	50489.38
Chevron Corp	156.89	-3.33	189.68	132.54	3.12	20.93	297241.14
Chipotle Mexic.	2048.47	20.26	2077.29	1196.28	-	97.16	56516.96
Chubb	200.77	1.84	230.27	173.78	1.46	11.32	83153.81
Cigna	257.00	-3.74	340.11	240.11	1.43	17.75	76039.16
Cintas Corp	474.72	8.35	478.39	343.86	0.70	45.20	48279.88
Cisco	46.66	0.41	52.56	38.61	2.95	17.99	191090.64
Citigroup	45.58	-0.75	66.00	40.01	4.12	4.88	88723.21
CME Grp	185.10	-0.04	212.09	166.55	1.79	27.58	66581.36
Coca-Cola	63.92	-0.10	66.38	54.02	2.42	30.86	276427.04
Cognizant	61.70	-1.59	75.40	51.33	1.43	16.55	31423.81
ColgtPlm	81.49	0.90	83.81	67.84	2.02	34.71	67601.51
Comcast	40.33	-0.10	44.66	28.39	2.28	14.41	167747.92
ConocPhil	99.17	-1.20	138.49	78.30	1.81	17.74	120001.52
Constellation	226.82	3.38	261.32	208.12	1.25	-1109.26	41560.67
Corning	30.99	-0.50	37.73	28.98	2.85	26.29	26341.29
Corteva	56.92	-1.33	68.43	50.03	0.86	26.08	40462.89
Corteva	56.92	-1.33	68.43	50.03	0.86	26.08	40462.89
Costco	503.31	4.25	564.75	406.51	0.58	43.64	223207.31
CrownCstl	116.54	-1.96	193.95	114.43	4.31	47.41	50540.05
CSX	31.87	0.01	34.71	25.80	1.13	19.12	64793.46
CVS	68.76	-1.92	107.26	68.10	2.68	12.55	88152.06
Danaher	228.03	-14.41	303.82	226.83	0.37	28.26	168263.06
Deere	374.72	-6.37	448.40	283.81	0.97	22.35	111037.88
Delta	33.14	-0.81	42.45	27.20	-	43.19	21296.36
Devon Energy	47.00	-3.36	79.40	44.03	3.86	12.18	30738
Digital Realty	96.80	0.38	141.77	85.76	4.41	17.70	28200.94
DiscFinServ	95.32	-0.64	118.71	87.64	1.82	5.81	24206.14
Disney	91.63	-8.89	126.48	84.07	-	57.86	167436.14
Dollar General	216.75	-2.20	261.59	183.25	0.72	22.93	47491.76
DominRes	55.34	-1.16	86.28	52.03	4.19	18.84	46256.82
DukeEner	97.72	-1.64	114.50	83.76	3.67	21.53	75308.09
DuPont	63.66	-1.85	78.40	49.52	1.74	21.41	29221.01
Eaton	168.40	-2.65	178.75	122.50	1.66	34.25	67124.24
eBay	45.03	-0.60	50.82	35.92	1.47	128.70	24068.68
Ecolab	174.42	0.75	179.77	131.04	1.03	48.45	49661.03
Edwards Lifesc.	88.95	0.21	107.92	67.13	-	40.59	53923.11
Eli Lilly	436.59	8.78	445.54	283.11	0.72	77.48	414443.07
Emerson	82.10	-2.30	99.65	72.41	2.28	19.47	46920.15
EOG Res	110.00	-4.17	150.88	92.16	1.35	14.95	64336.15
Equinix	738.75	-1.25	752.63	494.89	1.43	145.09	69090.31
EquityResTP	62.72	-0.66	80.89	54.60	3.54	19.88	23764.9
Exelon	41.85	-1.01	49.86	35.19	3.37	26.12	41617.74
ExxonMb	106.00	-2.68	119.92	80.69	3.03	21.36	428556.4
Fedex	224.44	-4.86	248.76	141.92	1.18	13.11	56414.43
Fidelity NIS	54.90	-0.86	106.65	48.57	2.62	88.99	32521.8
Fiserv	119.61	-0.70	122.39	87.03	-	65.28	75127.05
FordMtr	11.75	-0.25	16.68	10.61	0.78	2.87	46156.89
Franklin	24.51	-1.03	32.88	20.24	4.25	7.04	12274.06
GenDyn	209.33	-2.59	256.86	205.40	2.05	19.68	57426.67
GenElectric	99.18	-1.06	102.95	46.77	0.30	-33.14	108003.06
GenMills	90.16	0.35	90.65	64.94	2.10	25.87	52952.94
GenMotors	32.32	-0.95	43.63	30.33	-	5.24	44921.84
GileadSci	78.30	-1.46	89.74	57.17	3.34	17.25	97661.48
GoldmSchs	319.65	-7.37	389.58	277.84	1.87	5.84	106267.03
Halliburton	28.77	-1.11	43.99	23.30	0.84	17.56	25956.15
HCA Hold	277.30	-0.76	294.02	164.47	0.64	14.23	76310.13
Hew-Pack	28.82	-1.32	40.79	24.08	2.68	5.65	28386.1
Hilton Worldwi.	141.26	-3.36	152.89	108.41	-	105.08	37379.82
HiltonWwde	141.26	-3.36	152.89	108.41	-	105.08	37379.82
HomeDep	288.84	-0.78	347.25	264.51	2.12	20.01	292499.31
Honywell	193.69	-4.73	220.96	166.63	1.79	26.60	128934.93
HumanaInc	527.38	-7.65	571.30	410.87	0.49	25.27	65892.87
IBM	121.57	-2.08	153.21	115.55	4.96	25.34	110391.08
IDEXX Laborato.	485.25	-3.24	515.79	317.06	-	61.28	40227.23
IllinoisTool	227.26	-3.05	247.09	173.52	1.91	29.00	69064.95
Illumina	208.05	8.39	258.07	173.45	-	44.83	32892.71
Intcntl Exch	108.59	0.28	113.07	88.60	1.12	16.43	60795.51
Intel	29.06	-1.94	44.93	24.59	4.40	6.49	121188.41
Intuit	428.82	2.87	490.83	339.36	0.55	58.32	120303.9
John&John	160.50	-2.19	183.35	150.11	2.40	22.32	417083.83
JohnsonCn	61.88	-0.21	69.15	45.52	1.71	30.69	42455.8
JPMrgnCh	134.45	-2.30	144.34	101.28	2.60	9.51	392887.08
Kimb-Clark	144.29	-0.89	147.87	108.74	3.01	29.41	48680.56
KinderM	16.74	-0.30	20.20	15.78	6.11	39.27	37514.33
KLA Corp	388.38	2.72	428.28	250.20	0.92	21.71	53285.31
Kraft Heinz	40.60	-0.72	44.53	32.73	3.63	53.78	49825.84
Kroger	49.04	-0.20	55.79	41.82	1.48	24.31	35181.02
LasVegasSd	60.91	-0.74	65.58	28.88	-	-43.81	46554.67
LibertyGbl	17.23	-1.75	25.13	15.22	-	0.80	2947.91
Lilly (E)	436.59	8.78	445.54	283.11	0.72	77.48	414443.07

Stock	Price	+/-Week	52 Week High	52 Week Low	Yld	P/E	MCap m
Linde	368.58	2.21	373.58	262.47	1.06	54.69	180728.48
Lockheed	450.58	-4.96	508.10	373.67	2.27	21.01	114110.54
Lowes	203.31	-2.50	221.42	170.12	1.37	18.17	121245.19
Lyondell	89.62	-2.78	117.22	71.46	4.56	5.80	29151.07
Marathon Ptl	110.43	3.53	138.83	77.62	1.93	59.38	46853.55
Marsh&M	180.90	1.54	182.43	143.33	1.36	30.22	89495.09
MasterCard	381.26	-3.40	387.46	276.87	0.54	47.27	358493.87
McDonald's	295.47	-1.13	298.86	228.34	1.64	31.96	215702.48
McKesson	391.55	25.68	401.78	298.69	0.42	48.16	53095.07
Medtronic	88.50	-1.56	106.33	75.77	2.59	26.23	117742.5
Merck	117.25	-0.43	119.65	83.05	2.07	26.20	297514.37
Meta	234.28	1.50	244.92	88.09	-	18.48	518263.25
Metlife	50.08	-4.58	77.36	50.00	3.49	7.44	38352.31
Microsoft	308.57	-2.08	313.00	213.43	0.69	35.69	2294368.4
Mnstr Bvrg	59.41	-0.30	60.47	41.86	-	25.11	59410
MondelezInt	77.95	0.39	78.59	54.72	1.57	27.85	106149.67
Monsanto	10.07	-0.11	11.13	9.56	-	51.84	251.75
MorganStly	82.51	-2.37	100.99	72.05	2.34	11.16	137801.08
Netflix	341.07	18.31	373.83	162.71	-	32.96	151617.62
NextEraE	77.49	1.98	91.35	67.22	1.93	110.55	156784.85
Nike	120.41	-6.18	129.23	82.22	0.90	34.18	148356.15
NorfolkS	211.10	2.38	264.22	196.33	1.81	18.93	48054.72
Northrop	438.01	-8.81	556.27	433.18	1.29	10.93	66515.2
NXP	163.90	-2.92	198.28	132.08	1.26	26.22	42532.7
Occid Pet	57.83	-2.86	77.13	54.30	0.06	30.49	51569.62
Oracle	97.56	0.59	97.88	60.78	1.22	40.06	263392.68
Pepsico	195.58	1.31	196.00	154.86	2.00	38.69	269449.22
Perrigo	35.19	-0.56	43.90	30.78	2.51	-39.00	4761.44
Pfizer	37.47	-1.02	54.93	37.21	3.83	10.36	211530.22
Phillips66	93.75	0.31	113.53	74.02	3.56	34.28	43018.34
PhilMorris	95.03	-0.53	109.81	82.85	4.75	17.70	147505.25
PNCFin	111.56	-4.62	176.47	111.22	3.96	9.54	44524.49
PPG Inds	137.17	-0.87	145.51	107.06	1.60	32.69	32290.84
ProctGmbl	155.27	-0.76	158.11	122.18	2.12	28.66	365966.63
Prudntl	79.02	-3.03	110.96	75.37	5.36	4.40	28842.3
PublStor	293.33	-2.58	357.13	270.13	2.51	32.28	51570.95
Qualcomm	103.64	-5.14	156.66	101.93	2.39	12.89	115454.96
Raytheon	96.15	-0.43	104.91	80.27	1.92	40.48	140488.8
Regen Pharm	746.11	-15.99	837.55	538.01	-	11.26	80212.05
S&P Global	360.37	6.18	395.80	279.32	0.79	31.29	116039.14
Salesforce	201.58	3.99	206.28	126.34	-	146.53	197721.33
Schlmbrg	44.20	-1.55	59.45	30.65	1.04	36.37	62772.33
Sempra Energy	153.53	-1.39	176.47	136.54	2.64	41.58	48308.3
Shrwin-Will	228.55	-2.29	278.31	195.24	0.89	35.56	58940.83
SimonProp	106.49	-3.07	129.55	86.02	6.18	16.91	34819.37
SouthCpr	69.43	-9.79	82.05	42.42	4.24	17.18	53672.58
Starbucks	105.15	-2.07	115.48	68.39	1.61	30.86	120538.23
StateSt	67.08	-1.43	94.74	58.62	2.99	10.13	22567.95
Stryker	284.31	-0.40	306.56	188.84	0.84	59.27	107926.4
Sychrony Fin	27.25	-0.09	40.89	26.59	3.06	3.90	11678.55
T-MobileUS	143.69	0.13	154.38	121.64	-	64.75	172406.55
Target	158.59	2.29	223.30	137.16	1.85	12.10	73197.67
TE Connect	119.99	-2.95	138.24	104.76	1.52	17.71	37808.85
Tesla Mtrs	170.27	0.21	314.67	101.81	-	37.74	539671.5
TexasInstr	161.75	-4.07	186.30	144.46	2.40	21.27	146813.01
TheTrvelers	182.69	0.39	194.45	149.65	1.82	12.23	42197.11
ThrmoFshr	524.52	-21.86	611.06	475.77	0.18	29.27	202318.53
TJX Cos	78.57	0.07	83.13	53.69	1.23	31.31	90472.79
Truist Financial Corp	26.91	-1.78	52.22	25.56	6.36	6.54	35841.91
Twitter	53.70	1.26	60.16	31.30	-	-224.30	41093.72
UnionPac	198.85	-2.38	242.36	183.69	2.14	19.96	121240.68
UPS	169.29	-6.46	209.39	154.87	2.22	12.52	122694.33
USBancorp	28.92	-1.82	53.37	27.27	5.60	6.16	44332.07
UtdHlthcre	490.38	-3.90	558.10	449.70	1.05	29.46	456559.49
ValeroEngy	111.17	4.13	146.81	96.93	3.25	53.19	40189.84
Verizon	37.56	-0.27	52.18	34.55	6.21	7.67	157747.6
VertexPharm	348.48	0.39	354.46	233.62	-	42.01	89751.58
VF Cp	21.25	-0.87	51.40	20.03	8.54	7.57	8258.96
Visa Inc	231.55	-0.23	235.57	174.60	0.53	41.64	374699.63
Walgreen	31.07	-1.10	44.96	30.39	5.68	4.89	26807.06
WalMartSto	153.48	1.71	154.64	117.27	1.33	33.91	413988.79
Walt Disney	91.63	-8.89	126.48	84.07	-	57.86	167436.14
Waste Manage.	169.55	1.12	175.98	138.89	1.25	42.92	68974.76
WellsFargo	37.63	-0.31	48.84	35.25	1.89	8.26	141196.17
Williams Cos	29.17	-1.01	37.97	27.80	5.18	25.55	35534.52
Workday	180.10	-1.38	206.68	128.72	-	1614.72	37060.13
Yum!Brnds	137.62	0.13	143.25	103.97	1.34	28.69	38545.57
Zoetis	183.81	-2.42	187.82	124.15	0.50	46.75	84940.83
Zoom	63.87	0.47	124.05	60.45	-	15.27	15788.66
Venezuela (VEF)							
Bco de Vnzla	4.37	-0.13	4.59	0.57	118.61	-	629.53
Bco Provncl	8.27	0.07	70000	6.80	-	0.00	122.50

Closing prices and highs & lows are in traded currency (with variations for that country indicated by stock), market capitalisation is in USD. Highs & lows are based on intraday trading over a rolling 52 week period.
♦ ex-dividend
■ ex-capital redistribution
price at time of suspension

FT 500: TOP 20

	Close price	Prev price	Day change	Day change %	Week change	Week change %	Month change %
Petrobras	28.61	28.15	0.46	1.63	2.44	11.3	-1.41
Alphabet	117.30	116.57	0.73	0.63	11.00	11.1	11.97
Fresenius SE	27.69	27.80	-0.11	-0.40	2.73	10.5	10.45
Continental	66.36	65.22	1.14	1.75	3.78	8.0	7.98
ItauHldFin	22.89	23.05	-0.16	-0.69	1.85	8.0	4.90
SHOP	83.68	84.93	-1.25	-1.47	7.28	7.8	37.15
NovoB	1175.60	1155.60	20.00	1.73	61.60	7.5	8.71
McKesson	391.55	392.05	-0.50	-0.13	26.18	7.0	7.95
Bradesco	13.26	13.39	-0.13	-0.97	0.98	6.8	8.07
Nissan Mt	532.50	505.80	26.70	5.28	5.50	6.4	6.05
Cred Agr	11.76	11.55	0.21	1.80	0.49	6.3	10.41
MitsbCp	5347.00	5350.00	-3.00	-0.06	318.00	6.3	10.41
Advanced Micro	95.29	97.10	-1.81	-1.86	7.26	6.1	3.10
PTT Explor	32.25	32.25	0.00	0.00	1.75	5.7	2.38
Netflix	341.07	344.76	-3.69	-1.07	22.00	5.7	2.86
BBVA	6.60	6.54	0.06	0.92	0.25	4.9	1.79
ING	11.75	11.50	0.25	2.17	0.29	4.8	2.10
Amazon	110.75	112.18	-1.43	-1.27	6.53	4.8	13.07
Hind Unilevr	2623.40	2592.40	31.00	1.20	85.65	4.7	2.97
ChShenEgy	27.45	27.95	-0.50	-1.79	1.70	4.6	13.22

Based on the FT Global 500 companies in local currency

FT 500: BOTTOM 20

	Close price	Prev price	Day change	Day change %	Week change	Week change %	Month change %
Ch Rail Cons	6.36	6.81	-0.45	-6.61	-0.46	-12.5	7.60
SouthCpr	69.43	69.45	-0.03	-0.04	-9.76	-12.4	-10.40
Ch Rail Gp	5.43	5.68	-0.25	-4.40	-0.50	-12.1	3.83
LibertyGbl	17.23	17.35	-0.13	-0.72	-1.62	-9.2	-10.55
Disney	91.63	92.31	-0.68	-0.74	-8.21	-8.8	-6.45
Walt Disney	91.63	92.31	-0.68	-0.74	-8.21	-8.8	-6.45
Metlife	50.08	51.23	-1.15	-2.24	-3.43	-8.4	-16.61
Ch Coms Cons	4.93	5.14	-0.21	-4.09	-0.23	-8.2	2.70
CSR	4.69	4.84	-0.15	-3.10	-0.26	-8.0	-3.70
Pwr Cons Corp	7.20	7.46	-0.26	-3.49	-0.34	-7.7	-0.69
ChShpbldng	4.53	4.62	-0.09	-1.95	-0.26	-7.2	17.05
Bayer	54.13	53.94	0.19	0.35	-4.16	-6.8	-6.83
ChStConEng	6.53	6.73	-0.20	-2.97	-0.27	-6.7	4.98
AirProd	276.86	276.55	0.31	0.11	-20.15	-6.7	-3.64
Devon Energy	47.00	47.26	-0.26	-0.55	-3.10	-6.7	-13.82
Baxter	43.00	43.38	-0.39	-0.89	-2.67	-6.6	0.77
AXA	26.96	26.93	0.04	0.13	-1.94	-6.6	-6.74
ChinaPcIns	23.95	24.75	-0.80	-3.23	-0.80	-6.3	7.66
Intel	29.06	28.86	0.20	0.68	-2.13	-6.2	-9.28
Truist Financial Corp	26.91	26.83	0.08	0.30	-1.86	-6.2	-18.94

Based on the FT Global 500 companies in local currency

BONDS: HIGH YIELD & EMERGING MARKET

May 12	Red date	Coupon	S*	M*	F*	Bid price	Bid yield	Day's chge yield	Mth's chge yield	Spread vs US
High Yield US$										
HCA Inc.	04/24	8.36	BB-	Ba2	BB	113.75	4.24	0.00	0.12	-
High Yield Euro										
Aldesa Financial Services S.A.	04/21	7.25	-	-	B	71.10	28.23	0.00	0.64	25.98
Emerging US$										
Peru	03/19	7.13	BBB+	A3	BBB+	104.40	2.60	-	-	0.34
Colombia	01/26	4.50	-	Baa2	BBB-	109.50	2.33	0.16	0.52	1.28
Brazil	04/26	6.00	-	Ba2	BB-	115.15	2.78	-0.01	0.65	1.73
Poland	04/26	3.25	-	A2	A-	111.22	0.98	0.03	0.16	-0.07
Mexico	05/26	11.50	-	Baa1	BBB-	149.00	1.61	0.00	-0.12	0.56
Turkey	03/27	6.00	-	Ba2	BB+	101.26	5.82	0.00	0.17	3.07
Turkey	03/27	6.00	-	B2	BB-	102.88	5.43	0.14	0.83	4.38
Peru	08/27	4.13	BBB+	A3	BBB+	103.50	3.66	0.01	-0.02	0.80
Russia	06/28	12.75	-	Baa3	BBB	168.12	2.48	0.07	0.05	-
Brazil	02/47	5.63	-	Ba2	BB-	101.48	5.52	0.08	0.80	-
Emerging Euro										
Brazil	04/21	2.88	BB-	Ba2	BB-	103.09	0.05	0.01	-0.09	-1.19
Mexico	04/23	2.75	BBB+	A3	BBB+	107.76	0.76	0.00	-0.07	-1.56
Mexico	04/23	2.75	-	Baa1	BBB-	106.48	-0.26	-	-	-0.36
Bulgaria	03/28	3.00	BBB-	Baa2	BBB	117.04	1.00	0.02	-0.15	-1.42

Interactive Data Pricing and Reference Data LLC, an ICE Data Services company. US $ denominated bonds NY close; all other London close. *S - Standard & Poor's, M - Moody's, F - Fitch.

BONDS: GLOBAL INVESTMENT GRADE

May 12	Red date	Coupon	S*	M*	F*	Bid price	Bid yield	Day's chge yield	Mth's chge yield	Spread vs US
US$										
FleetBoston Financial Corp.	01/28	6.88	BBB+	Baa1	A-	129.00	2.54	-0.01	-0.05	-
The Goldman Sachs Group, Inc.	02/28	5.00	BBB+	A3	A	117.21	2.47	0.00	0.32	-
NationsBank Corp.	03/28	6.80	BBB+	Baa1	A-	127.69	2.72	-0.01	0.06	-
GTE LLC	04/28	6.94	BBB+	Baa2	A-	128.27	2.80	0.00	-0.11	-
United Utilities PLC	08/28	6.88	BBB	Baa1	A-	130.43	2.62	-0.07	-0.22	-
Barclays Bank plc	01/29	4.50	A	A1	A+	96.46	5.02	0.00	0.02	-
Euro										
Electricite de France (EDF)	04/30	4.63	A-	A3	A-	137.45	0.82	-0.01	0.10	-
The Goldman Sachs Group, Inc.	02/31	3.00	BBB+	A3	A	124.42	0.68	0.00	-0.11	-
The Goldman Sachs Group, Inc.	02/31	3.00	BBB+	A3	A	121.70	0.93	0.00	0.02	-
Finland	04/31	0.75	AA+	Aa1	AA+	111.08	-0.27	0.00	-0.05	-0.87
Yen										
Mexico	06/26	1.09	-	Baa1	BBB-	98.73	1.34	-0.02	-0.14	0.27
£ Sterling										
innogy Fin B.V.	06/30	6.25	BBB	Baa2	A-	128.68	3.20	0.00	-0.01	0.40
innogy Fin B.V.	06/30	6.25	BBB	Baa2	A-	137.45	2.19	-0.03	0.02	-

Interactive Data Pricing and Reference Data LLC, an ICE Data Services company. US $ denominated bonds NY close; all other London close. *S - Standard & Poor's, M - Moody's, F - Fitch.

INTEREST RATES: OFFICIAL

May 12	Rate	Current	Since	Last
US	Fed Funds	4.75-5.00	22-03-2023	4.75-4.50
US	Prime	8.25	04-05-2023	8.00
US	Discount	5.00	02-05-2023	4.75
Euro	Repo	3.25	02-05-2023	2.899
UK	Repo	4.50	11-05-2023	4.25
Japan	O'night Call	0.00-0.10	01-02-2016	0.00
Switzerland	Libor Target	-1.25-0.25	15-01-2015	-0.75--0.25

INTEREST RATES: MARKET

May 12 (Libor: May 11)	Over night	Change Day	Change Week	Change Month	One month	Three month	Six month	One year
US$ Libor	5.06171	0.001	0.251	-0.001	5.10743	5.32071	5.34871	5.26586
Euro Libor	-0.64957	-0.064	0.000	0.001	-0.61943	-0.58057	-0.55600	-0.48571
£ Libor	0.18063	-0.005	0.000	0.001	4.20130	4.68100	4.74470	0.81363
Swiss Fr Libor				-0.002	-0.77540	-0.75300	-0.70280	-0.55320
Yen Libor				0.000	-0.06005	-0.02617	0.07165	0.04867
Euro Euribor				0.013	3.15900	3.32300	3.62900	3.79500
Sterling CDs				0.000	0.50000	0.63000	0.78500	
US$ CDs				0.000	5.13000	5.25000	5.26000	
Euro CDs				0.060	3.14000	3.30000	3.52000	

May 12	Short term		7 Days notice		One month		Three month		Six month		One year	
Euro	2.89	3.19	2.93	3.23	2.99	3.29	3.15	3.45	3.37	3.67	3.42	3.72
Sterling					0.45	0.55	0.58	0.68	0.71	0.86	0.90	1.05
US Dollar	4.89	5.09	4.90	5.10	5.03	5.23	5.15	5.35	5.16	5.36	4.93	5.13
Japanese Yen	-0.30	-0.10	-0.30	-0.10	-0.25	0.05	-0.15	0.05	-0.05	0.15	0.00	0.20

Libor rates come from ICE (see www.theice.com) and are fixed at 11am UK time. Other data sources: US $, Euro & CDs: Tullett Prebon; SDR, US Discount: IMF; EONIA: ECB; Swiss Libor: SNB; EURONIA, RONIA & SONIA: WMBA.

BOND INDICES

	Index	Day's change	Month's change	Year change	Return 1 month	Return 1 year
Markit IBoxx						
ABF Pan-Asia unhedged	211.40	0.11	0.81	3.77	0.57	5.03
Corporates(£)	331.84	0.49	0.07	2.70	0.04	-6.98
Corporates(€)	213.13	0.25	0.39	2.81	0.74	-3.18
Eurozone Sov(€)	213.49	0.44	0.55	2.88	0.47	-7.51
Gilts(£)	270.33	0.48	-0.17	0.28	-2.07	-16.19
Overall(£)	280.95	0.48	-0.09	0.89	-1.54	-13.86
Overall(€)	209.72	0.38	0.53	2.71	0.54	-6.41
FTSE						
Sterling Corporate (£)	-	-	-	-	-	-
Euro Corporate (€)	104.47	-0.05	-	-	0.54	-1.73
Euro Emerging Mkts (€)	621.26	-8.98	-	-	-9.03	-0.43
Eurozone Govt Bond	110.04	-0.19	-	-	-0.34	-0.64

CREDIT INDICES	Index	Day's change	Week's change	Month's change	Series high	Series low
Markit iTraxx						
Crossover 5Y	451.89	-2.43	2.26	14.06	510.17	424.31
Europe 5Y	86.49	-0.61	0.16	3.30	101.15	79.69
Japan 5Y	78.93	-0.36	-1.11	-9.53	99.54	78.93
Senior Financials 5Y	101.57	-2.37	-1.14	3.92	124.01	91.28
Markit CDX						
Emerging Markets 5Y	246.71	-2.28	-5.29	16.51	265.81	229.64
Nth Amer High Yld 5Y	497.18	5.02	-11.33	33.83	509.56	458.20
Nth Amer Inv Grade 5Y	80.92	0.50	-2.36	6.10	88.71	73.57

Websites: markit.com, ftse.com. All indices shown are unhedged. Currencies are shown in brackets after the index names.

VOLATILITY INDICES

	May 12	Day Chng	Prev	52 wk high	52 wk low
VIX	16.72	-0.21	16.93	35.05	15.53
VXD	16.30	-0.08	16.38	37.57	10.88
VXN	19.54	0.14	19.40	44.02	5.85
VDAX	17.44	-1.61	19.04	93.30	-

† CBOE. VIX: S&P 500 index Options Volatility, VXD: DJIA Index Options Volatility, VXN: NASDAQ Index Options Volatility.
‡ Deutsche Borse. VDAX: DAX Index Options Volatility.

BONDS: BENCHMARK GOVERNMENT

	Red Date	Coupon	Bid Price	Bid Yield	Day chg yield	Wk chg yield	Month chg yld	Year chg yld
Australia	-	-	-	-	-	-	-	-
	05/32	1.25	83.56	3.38	-0.07	0.08	0.05	-0.13
	02/50	1.00	99.61	1.63	-0.04	0.09	0.15	0.12
Austria	02/29	0.50	88.62	2.65	-0.07	0.04	-0.12	1.45
	02/47	1.50	73.30	3.10	-0.06	0.03	0.00	1.48
Belgium	06/27	0.80	93.27	2.55	-0.04	0.04	-0.13	1.63
	06/47	1.60	71.33	3.35	-0.08	0.02	-0.03	1.34
Canada	03/25	1.25	95.81	3.68	-0.03	0.13	-0.02	0.92
	06/30	1.25	90.14	2.80	-0.06	0.08	-0.04	-0.16
	12/48	2.75	95.36	3.01	-0.06	0.02	0.01	0.03
Denmark	11/29	0.50	88.61	2.41	-0.07	0.01	-0.14	1.18
	11/52	0.25	52.55	2.56	-0.06	0.03	-0.01	1.12
Finland	09/24	0.00	96.39	2.79	-0.03	0.02	-0.09	2.43
	09/29	0.50	87.57	2.66	-0.07	-0.01	-0.14	1.46
France	05/28	0.75	91.68	2.53	-0.06	0.02	-0.12	1.50
	05/48	2.00	79.04	3.23	-0.08	0.01	-0.03	1.34
Germany	08/29	0.00	87.66	2.13	-0.07	0.03	-0.13	1.28
	08/50	0.00	53.45	2.33	-0.06	0.04	-0.01	1.19
Greece	-	-	-	-	-	-	-	-
	01/28	3.75	101.24	3.46	-0.05	-0.11	-0.17	1.00
Ireland	-	-	-	-	-	-	-	-
	05/26	1.00	95.58	2.55	-0.05	0.02	-0.12	1.76
	02/45	2.00	81.32	3.20	-0.08	0.00	-0.02	1.28
Italy	02/25	0.35	95.23	3.23	-0.02	0.04	-0.10	1.90
	05/30	0.40	91.25	1.73	-0.04	-0.07	0.01	1.45
	03/48	3.45	84.56	4.49	-0.06	0.06	0.04	1.32
Japan	04/25	0.05	100.01	0.04	-0.01	-0.01	-0.01	-0.02
	12/29	0.10	99.52	0.17	-0.02	-0.03	-0.03	-0.02
	12/49	0.40	81.47	1.22	-0.03	-0.04	-0.04	0.24
Netherlands	07/27	0.75	93.48	2.41	-0.06	0.03	-0.14	1.59
	01/47	2.75	101.35	2.67	-0.07	0.03	-0.02	1.38
New Zealand	05/31	1.50	82.42	4.10	-0.03	0.01	0.03	0.35
	09/40	2.50	122.77	2.40	0.03	0.20	0.16	0.56
Norway	08/30	1.38	88.47	3.18	-0.06	0.08	0.02	0.28
Poland	-	-	-	-	-	-	-	-
	07/27	2.50	88.20	5.74	-0.04	-0.05	-0.19	-1.54
	04/47	4.00	76.52	5.85	0.00	0.00	-0.09	-0.46
Portugal	04/27	4.13	105.57	2.61	-0.04	-0.03	-0.10	1.34
Spain	-	-	-	-	-	-	-	-
	10/29	0.60	86.18	2.98	-0.06	0.01	-0.09	1.35
	10/46	2.90	86.00	3.81	-0.06	0.03	0.01	1.37
Sweden	06/30	0.13	114.18	0.60	-0.09	-0.19	-0.15	1.53
	03/39	3.50	115.22	2.34	-0.11	-0.09	-0.10	0.31
Switzerland	04/28	4.00	115.38	0.79	-0.13	-0.16	-0.17	0.31
	06/29	0.00	94.82	0.87	-0.08	-0.10	-0.12	0.28
United Kingdom	07/23	0.75	99.30	4.35	-0.10	0.03	0.09	3.10
	07/27	1.25	90.92	3.60	-0.10	0.03	-0.06	2.12
	07/47	1.50	59.86	4.14	-0.06	0.04	0.05	2.01
United States	-	-	-	-	-	-	-	-
	03/25	0.50	93.78	3.96	0.01	0.18	-0.16	1.15
	02/30	1.50	88.85	3.36	-0.03	0.06	-0.13	0.46
	02/50	0.25	70.98	1.58	-0.04	0.02	0.03	0.98

Interactive Data Pricing and Reference Data LLC, an ICE Data Services company.

GILTS: UK CASH MARKET

May 12	Price £	Red Yield	Change in Yield Day	Week	Month	Year	52 Week High	52 Week Low	Amnt £m
	-	-	-	-	-	-	-	-	-
Tr 0.75pc '23	99.35	4.21	0.72	-0.24	-1.41	275.89	99.52	97.34	34.36
Tr 0.125pc '24	97.15	4.23	2.17	2.92	3.93	241.13	98.06	94.34	35.55
Tr 2pc '25	95.86	3.89	1.30	2.10	7.46	208.73	102.27	93.15	39.93
Tr 0.125pc '26	90.87	3.70	1.65	2.49	7.25	191.34	95.73	86.33	35.32
Tr 1.25pc '27	90.75	3.65	1.39	2.53	7.04	174.44	99.42	85.65	40.99
Tr 0.5pc '29	83.50	3.73	1.08	2.47	5.67	148.67	95.39	78.21	28.92
Tr 1pc '32	79.96	3.71	1.37	2.20	5.70	118.24	123.11	78.92	35.96
Tr 4.25pc '36	103.45	3.90	1.56	2.36	5.98	104.19	127.80	94.91	31.68
Tr 4.5pc '42	104.60	4.15	1.47	2.47	6.41	108.54	141.61	93.79	28.35
Tr 3.75pc '52	92.63	4.19	1.70	2.70	7.44	115.98	140.41	82.51	25.11
Tr 4pc '60	98.25	4.09	1.74	2.76	8.20	121.08	157.65	87.32	25.13

Gilts benchmarks & non-rump undated stocks. Closing mid-price in pounds per £100 nominal of stock.

GILTS: UK FTSE ACTUARIES INDICES

Price Indices

Fixed Coupon	May 12	Day's chg %	Total Return	Return 1 month	Return 1 year	Yield
1 Up to 5 Years	81.42	-0.09	2357.35	-0.17	-2.87	3.84
2 5 - 10 Years	147.72	-0.34	3152.55	-1.02	-10.64	3.66
3 10 - 15 Years	155.94	-0.59	3632.97	-1.89	-16.05	3.91
4 5 - 15 Years	148.59	-0.42	3266.17	-1.30	-12.22	3.76
5 Over 15 Years	207.09	-1.11	3601.07	-5.09	-31.10	4.13
7 All stocks	133.77	-0.53	3010.60	-2.18	-17.08	4.00

Index Linked	May 12	Day's chg %	Month chg %	Year's chg %	Total Return	Return 1 month	Return 1 year
1 Up to 5 Years	326.37	-0.02	0.11	0.12	2773.91	0.29	1.23
2 Over 5 years	531.82	-1.30	-4.88	-32.28	4065.47	-4.76	-31.90
3 5-15 years	453.96	-0.47	-1.72	-14.10	3687.52	-1.57	-13.37
4 Over 15 years	588.61	-1.88	-7.03	-40.89	4364.13	-6.93	-40.67
5 All stocks	506.35	-1.08	-4.07	-28.41	3950.23	-3.94	-27.96

Yield Indices	May 12	May 11	Yr ago		May 12	May 11	Yr ago
5 Yrs	3.62	3.56	1.32	20 Yrs	4.16	4.09	2.02
10 Yrs	3.78	3.73	1.72	45 Yrs	4.00	3.92	1.78
15 Yrs	4.04	3.98	1.96				

Real yield	inflation 0% May 12	Dur yrs	Previous	Yr ago	inflation 5% May 12	Dur yrs	Previous	Yr ago
Up to 5 yrs	0.67	2.35	0.66	-4.43	0.32	2.37	0.29	-4.86
Over 5 yrs	0.67	19.14	0.60	-1.77	0.65	19.18	0.58	-1.78
5-15 yrs	0.40	9.27	0.35	-2.52	0.33	9.29	0.27	-2.60
Over 15 yrs	0.74	25.81	0.66	-1.66	0.73	25.82	0.65	-1.67
All stocks	0.67	16.31	0.60	-1.80	0.64	16.38	0.57	-1.82

See FTSE website for more details www.ftse.com/products/indices/gilts
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COMMODITIES

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Energy		Price*	Change
Crude Oil†	Jun	71.11	0.24
Brent Crude Oil‡		74.39	-0.59
RBOB Gasoline†	Jul	2.45	0.00
Natural Gas†	Jun	2.16	-0.03
Base Metals (♠ LME 3 Months)			
Aluminium		2237.00	24.00
Aluminium Alloy		2150.00	-75.00
Copper		8276.00	87.50
Lead		2085.00	-20.00
Nickel		22340.00	470.00
Tin		25135.00	-235.00
Zinc		2566.00	22.50
Precious Metals (PM London Fix)			
Gold		2015.95	-21.20
Silver (US cents)		2488.50	-63.50
Platinum		1123.00	38.00
Palladium		1620.00	50.00
Bulk Commodities			
Iron Ore		104.80	-2.05
Baltic Dry Index		1558.00	-50.00
Richards Bay ICE Futures		114.15	-2.85

Agricultural & Cattle Futures		Price*	Change
Corn♦	Jul	580.75	-1.50
Wheat♦	Jul	635.00	7.75
Soybeans♦	Jul	1411.25	5.75
Soybeans Meal♦	Jul	434.70	3.30
Cocoa (ICE Liffe)✠	Jul	2264.00	8.00
Cocoa (ICE US)♥	Jul	3030.00	27.00
Coffee(Robusta)✠	May	2575.00	28.00
Coffee (Arabica)♥	Jul	184.25	1.25
White Sugar✠		714.10	8.80
Sugar 11♥		26.19	0.17
Cotton♥	Jul	79.94	0.32
Orange Juice♥	Jul	246.80	-2.35
Live Cattle♣	Jun	163.15	0.15
Feeder Cattle♣	May	134.88	-
Lean Hogs♣	Jun	83.98	-0.20

	May 11	% Chg Month	% Chg Year
S&P GSCI Spt	537.93	-10.03	-27.77
DJ UBS Spot	100.91	-6.29	-20.69
TR/CC CRB TR	284.83	-5.69	-12.27
LEBA EUA Carbon	58.91	-1.98	129.94
LEBA UK Power	1048.00	-37.43	-39.60

Sources: † NYMEX, ‡ ECX/ICE, ♦ CBOT, ✠ ICE Liffe, ♥ ICE Futures, ♣ CME, ♠ LME/London Metal Exchange.* Latest prices, $ unless otherwise stated.

BONDS: INDEX-LINKED

	Price May 11	Yield May 11	Yield Prev	Month return	Value stock	Market	No of stocks
Can 4.25%' 26	110.73	1.156	1.208	0.19	5.25	72901.71	8
Fr 0.25%' 24	100.52	-0.182	-0.223	0.20	17.92	261459.50	17
Swe 1.00%' 25	126.64	0.842	0.906	0.44	35.93	226509.65	7
UK 2.500%' 24	376.00	1.184	1.265	0.30	6.82	547902.09	30
UK 2.50%' 24	376.00	1.184	1.265	0.30	6.82	547902.09	30
UK 2.00%' 35	246.42	0.393	0.465	0.22	9.08	547902.09	30
US 0.625%' 26	97.47	1.595	1.586	0.13	42.42	1665643.51	48
US 3.625%' 28	111.06	1.299	1.281	0.18	16.78	1665643.51	48

Representative stocks from each major market Source: Merill Lynch Global Bond Indices † Local currencies. ‡ Total market value. In line with market convention, for UK Gilts inflation factor is applied to price, for other markets it is applied to par amount.

BONDS: TEN YEAR GOVT SPREADS

	Bid Yield	Spread vs Bund	Spread vs T-Bonds		Bid Yield	Spread vs Bund	Spread vs T-Bonds
Australia	3.38	1.25	0.02	Netherlands	2.41	0.28	-0.94
Austria	2.65	0.52	-0.70	New Zealand	4.10	1.97	0.74
Canada	2.80	0.67	-0.56	Norway	3.18	1.05	-0.18
Denmark	2.41	0.28	-0.94	Portugal	2.61	0.48	-0.75
Finland	2.66	0.53	-0.70	Spain	2.98	0.85	-0.38
Germany	2.13	0.00	-1.23	Sweden	0.60	-1.53	-2.76
Italy	1.73	-0.40	-1.62	Switzerland	0.87	-1.25	-2.48
Japan	0.17	-1.95	-3.18	United States	3.36	1.23	0.00

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MORNINGSTAR®

Rewriting reality
Beware the 'bad-ish' actor when it comes to AI
LEO LEWIS, OPINION

The unstoppable advance of the acronym

Pilita Clark
Business Life

Kenneth Andersson

Last week I went to Germany where I discovered they have a word for being excessively fond of abbreviations.

The word is *abkürzungsfimmel* and it makes sense in a language with words of such dire length that they look as if they've been typed on a keyboard with no space bar.

But the mania for acronyms, initialisms and other abbreviations is just as rife outside Germany, despite years of moaning about how profoundly these terms confuse, exclude and generally exasperate.

In fact, the trend is growing and resistance is so obviously pointless that I have begun to think it best to look for the upsides in the genre.

It helps to remember abbreviations date back to at least the time of Cicero, when ancient Romans shortened *Senatus PopulusQue Romanus* — the senate and people of Rome — to SPQR.

These shortcuts have exploded in more modern times as advances in science and technology have brought longer, more complex terms that many sectors rushed to abridge, not least the business world.

I was reminded of this recently when I was sent a new book that had not one, not two but three pages listing the acronyms readers would come across.

There was a reason: it was a book about climate finance, covering the chronically abbreviation-heavy worlds of climate change and finance. The P-words alone included PRI (principles for responsible investment); PPA (power purchase agreement) and PPP, which means purchasing power parity and, confusingly, public-private partnerships.

There was a time when I would have seized on this as another example of the idiocy of abbreviation. One reason I used to admire Elon Musk was his order to SpaceX and Tesla staff to shun "acronyms or nonsense words" because "anything that requires an explanation inhibits communication".

I have an email folder headed Acronyms Gone Mad where I file the inhibited business communication that regularly washes into my inbox.

> **"Resistance is so obviously pointless that I have begun to think it best to look for the upsides in the genre"**

The top-ranked contender so far this year is: "CSI names FIS veteran Linda Fischer COO, appoints new CRO, CPO and SVPs". But competition is tough, especially since the rise of crypto.

Last year I received an email quoting a trading platform CEO declaring, without explanation: "The UST and LUNA situation, along with the big recent BTC dips, are a clear example of how anything can go wrong in the volatile world of cryptocurrency."

Faced with this remorseless tide, it helps to remember how much power a well-placed abbreviation can have.

A writer on the FT's Lex column once memorably used the acronym PIGS to describe the economic woes of Portugal, Italy, Greece and Spain, in an item headlined Pigs in muck.

As the paper's then editor, Lionel Barber, later wrote in his memoir, *The Powerful and the Damned*, this provoked outrage. Readers accused the paper of sinking to the level of The Sun and Daily Mirror, while the Spanish embassy in London complained that "pig" was one of the most pejorative terms in the Spanish language.

Alas for the embassy, the Pigs have endured, probably for the same reason acronymic behaviour has engulfed, of all places, Washington DC: it creates catchy words in an age of distraction. Back when I worked in Washington, more than 20 years ago, members of Congress tended to introduce bills with the dull, sober titles you see in legislatures around the world. Since then, Capitol Hill has become a hotbed of the reverse-engineered acronym known as the "backronym".

Thus the Coronavirus Aid, Relief, and Economic Security Act, or Cares Act, was followed by Creating Helpful Incentives to Produce Semiconductors, or Chips, and the Crook Act (Countering Russian and Other Overseas Kleptocracy). Captivating analysis by a writer on the Atlantic magazine last year showed about 10 per cent of bills and resolutions introduced in the previous two years had backronym names, up from roughly one in 20 a decade earlier and less than 1 per cent in the late 1990s.

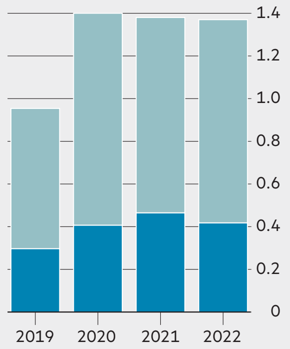
The thing about these names is they achieve what so many abbreviations do not: instant understanding. The world would not be a better place without them. If only we could say the same about every one of their ilk.

pilita.clark@ft.com

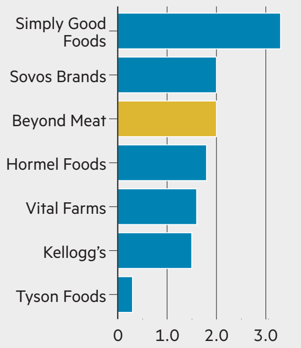
Lex.

Fake meat: has-beans

Fake meat market has stopped growing
Sales ($bn)



Food producer valuations
Market value as a multiple of revenue (x)



Sources: S&P Capital IQ, Plant Based Foods Association; S&P Capital IQ

Not long ago, plant-based meat seemed poised to take over the world's dinner plates. Fuelled by concerns about animal welfare, the environment and health, investment poured into the alternative protein sector. The frenzy for faux burgers and sausages hit a peak with Beyond Meat's US initial public offering in 2019.

The shares, priced at $25, surged almost 10-fold within two months of trading to give the company a market value of close to $14bn. The stock has crashed 94 per cent since then. Beyond Meat reported a first-quarter loss of $59mn this week on a 16 per cent drop in revenues to $92mn.

Why has fake meat lost its sizzle? The first problem is that it has not won enough converts. In the US, sales of plant-based meat substitutes have plateaued following a boost from pandemic stockpiling. Sales totalled $1.37bn last year, compared with $1.38bn in 2021 and $1.4bn in 2020, according to the Plant Based Foods Association. Price increases helped flatter the numbers. Sales volumes declined 8 per cent year on year.

The second issue is that plant-based meat is more expensive than the real thing. Omnivores have been trading down to cheaper cuts of animal meat. Vegetarians have been defaulting to simpler plant proteins, such as tofu or quinoa.

The third difficulty — highlighted by Lex amid initial market enthusiasm for Beyond Meat — is low barriers to market entry. There are now more than 60 plant-based meat companies, each with more than $500,000 in retail sales, according to The Good Food Institute.

The catalogue of problems puts Beyond Meat in a tight spot. Cash and equivalents have shrunk for the eighth straight quarter to $258mn. Net debt stands at $1.1bn. It plans to raise $200mn via a stock sale and announced two rounds of job losses last year.

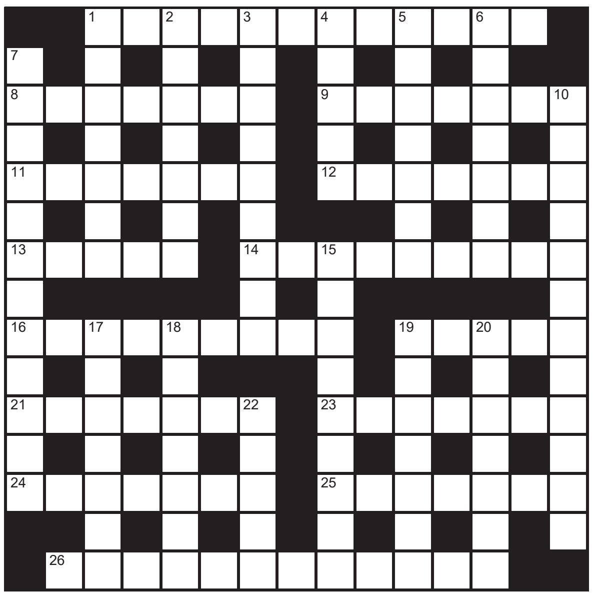
Privately held rival Impossible Foods has reportedly been planning to cut jobs too, despite record sales in 2022. Brazilian meat giant JBS has shut its US plant-based foods business, Planterra Foods, just two years after launching it.

In its heyday, Beyond Meat's shares traded on as much as 122 times revenue. The valuation has fallen to just two times. But that still looks expensive compared with other food producers, such as Hormel and Conagra, both of which are profitable and boast growing sales. The stock now resembles the unappetising leftovers from a failed culinary experiment.

NIKKEI Asia The voice of the Asian century

CROSSWORD

No 17,415 Set by MUDD



ACROSS

1 Concerned with present line taken by newspaper that's unofficial (3,3,6)
8 Match finished, appear happy (5,2)
9 Thinking it sad, men throwing a wobbly (7)
11 Drug – dope (7)
12 Plant the aforementioned trees, like elms for starters (7)
13 Fit of temper seeing place flooded? (5)
14 Credit claimed by eminent maverick for amount raised (9)
16 Sort of clue, just perfect (9)
19 Lead and cobalt finally found ʒ(5)
21 Knock prize, first off (7)
23 Pile provided in English bones (7)
24 One looking down on others, giant knocked over primates (7)
25 Torn stocking design for clothing (7)
26 Indicator roads relatively empty? (7,5)

DOWN

1 Dragon flying around you, ultimately aware of danger (2,5)
2 Note put on record in very serious manner (7)
3 In on (9)
4 Instructions given as watch wound up (5)
5 Lock up prisoner very well (7)
6 Pattern of spinning pirouettes, ornate (7)
7 Promising squeezes don't have enough pressure to make sausage (5,7)
10 Clear format for cricket? (6-6)
15 Converted, the cardinal having left home for place of worship (9)
17 Get dancing bear for drinking establishment (4,3)
18 Marriage over by the look of it, stop talking (4,3)
19 Initially six below par in sport (7)
20 Insect tucking away green food (7)
22 Rice dish served in Ephesus, historically (5)

JOTTER PAD

Solution 17,413

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WORK & CAREERS

It's 'Atlas Shrugged' and we're watching it live

Rutherford Hall
Critical Comms

Messages from the archive of Rutherford Hall, critical communications strategist

WhatsApp to Stephen: Eek. This is going to be tough. The tech lobby is freaking out over the UK's new online safety laws. They hate that it could see them ordered to weaken end-to-end encryption in messaging apps. Ministers say encryption shelters paedophiles and terrorists and they are taking powers to demand that police have some backdoor into the system; like decryption keys or maybe just demanding that all messages be shared confidentially with Isabel Oakeshott.

From: Rutherford@Monkwellstrategy.com
To: Siri@techmartrys.com
Hi Siri, We're psyched to be on your campaign. Our clients are voicing the same fears about laws to stop tech giants doing whatever they see fit. It's big government against the individual. You are so right. Ayn Rand would see this for what it is. It's *Atlas Shrugged* and it's happening in real time.

But we need to reframe the debate. Right now we have tech guys banging on about secure comms versus ministers who don't understand the tech but see a public safety line that plays with voters. Best, Rutherford

Member DSIT Panel on Business and the Metaverse
Find me on Strava, KoM Sydenham Hill, PR London to Brighton 3h 37m

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WhatsApp to Siri: No, I've not tested that point about voters liking crackdowns on paedophiles with focus groups. We don't need extra data on this.

WhatsApp to Siri: Honestly, I wouldn't talk up the tech firms "stellar record" on content moderation. But I can get you the polling data on that!

To: Siri@techmartyrs.com
Hi Siri, We see two arguments here. The first is your warnings that users may be more vulnerable to hacking and that evil governments will use that to persecute opponents. I know you feel this is key but ministers know voters prioritise counter-terrorism and child safety over civil-liberties. In any case, people assume that everything online gets hacked sooner or later anyway. We see more traction with government in playing up the wider threat to Britain's status as a global tech hub. You heard Rishi Sunak talking about the Unicorn Kingdom — yes I know, it's terrible.

You just know it came up at the end of a long meeting and people weren't really listening or were too tired to object.

Rishi wants the UK to be a magnet for tech talent. But recent decisions and policies are sending shivers up the sector's spines. So our message must be that the UK is now overregulated, costly and less tech-friendly than the EU. That will really get to them. Signal has already said they'd pack up if this law is enacted. Can we get someone in Meta to say the same about WhatsApp? That's the real *Atlas Shrugged*-level play. But don't get Nick Clegg to say it, he's got less credibility here than Boris Johnson's hairdresser. Best, R.

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WhatsApp to FrankP@Downing Street: Frank, congrats on the new role as Rishi's business adviser. I'm really worried about the impact tech policy is having on our ambitions for Britain as the Unicorn Kingdom. Who came up with that line by the way? It's bloody genius

WhatsApp to FrankP@Downing Street: Seriously, Meta may shut down WhatsApp if you do this. What will that say about tech in the UK? I'm not fussed by overblown, privacy arguments, but they are. You're not an innovation superpower if tech companies flee to the EU because its more lightly regulated. No unicorns, no Unicorn Kingdom. And Carthorse Kingdom doesn't sound as good.

Rishi wants Britain to be a magnet for tech talent. But there's been a run of decisions and policies sending shivers up the sector's spines

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WhatsApp to Stephen: Am getting seriously worried about MartinK at Volpone Bank. That data breach is really hurting him.

WhatsApp to Stephen: What? How did that get out? The entire details of the Volpone loan that let me buy your shares is on the web as a result of that data breach? This is a disaster. We haven't even told the staff. Wasn't it encrypted? What was Martin thinking?

WhatsApp to Siri: You know, on reflection perhaps we could play up the security and privacy point a bit more.

WhatsApp to FrankP@Downing Street: Frank, this isn't just about UK plc. I think we've underestimated the data security issue. Our private affairs being vulnerable to enemies of the state, rival businesses or our own staff, could erode trust in the fundamentals of democracy and capitalism. Imagine if every sensitive message you sent could be hacked by the Chinese, or worse, the Daily Telegraph. If we undermine the encryption that protects our way of life, aren't we actually letting the terrorists win?

Remuneration

Does it pay for British executives to move to the US?

Fears grow among boards that wage constraints will hurt UK-based companies, write *Daniel Thomas* and *Andrew Edgecliffe-Johnson*

The debate over whether the UK is losing its top talent — and falling further behind New York as the home of the world's top companies — has flared up in recent months
FT montage/Dreamstime/Unsplash

When Gavin Patterson moved to become a top executive at San Francisco-based tech company Salesforce in 2019 after a sometimes bruising few years running BT, there was one clear perk.

"On a personal level, you get to earn more money in the US," he said. "And there is no public outcry if you are successful."

Patterson took the decision now facing many UK executives — whether to move jobs, or sometimes businesses, to the US given the potential for higher valuations and personal rewards. Having returned to London after stepping down in January to pursue a non-executive career, Patterson is also clear the grass is not always greener for British executives.

"Governance in the US has positives and negatives," he said, reflecting on the threat of class action lawsuits and the more commonplace merging of chair and chief executive roles.

The debate over whether the UK is losing its top talent — and falling further behind New York as the home of the world's top companies — has flared up in recent months.

Last week, London Stock Exchange boss Julia Hoggett called for a fresh look at how executives are paid in the UK — and in particular the role of proxy agencies, which often urge shareholders to vote down pay awards. Her words echoed concerns from many FTSE chairs about the constraints they see on paying competitive wages to their top executives.

Shareholders recently voted down proposals for pay at Unilever, one of the UK's largest companies, and more revolts are expected as executive pay is scrutinised during a wider cost of living crisis. Campaigners and politicians have also called for curbs on executive pay as the gulf widens between the C-suite and lower level employees.

Laxman Narasimhan is among the recent examples of executives transforming their wealth by moving from the UK to the US. He earned the equivalent of $7.5mn in his last full year as chief executive of UK-listed household products group Reckitt Benckiser, but negotiated a package potentially worth $17.5mn a year to run US coffee chain Starbucks, even ignoring one-off inducements that took the headline number as high as $28mn.

In 2019, Namal Nawana quit as chief executive of Smith & Nephew because the UK medical devices company could not meet his pay demands.

Mark Freebairn, head of the board practice at headhunters Odgers Berndtson, said the issue was becoming a crisis for some companies: "There is genuine anxiety about losing executives to the US. It's happening at chair, CEO, CFO and non-exec levels."

The median total senior executive remuneration, including salary, bonus, stock awards and option awards, is about £26mn at companies in the S&P 500, according to Refinitiv data based on annual reports. For FTSE 100 companies, the median is about half that figure, at £13mn. Looking specifically at the chief executive role, median pay was $13.4mn in the US in 2019, compared with $5.5mn in the UK, according to Willis Towers Watson. CEOs' base salaries were broadly comparable, but the US companies offered much higher bonuses and long-term incentives.

Freebairn said pay was not the only motivating factor for executives considering a move: "The regulatory environment [in the US] means more time spent running the business and less time ticking boxes." But earning potential was a clear issue "when you know that someone is doing the same job for five or six more". He cited an example of a chief executive of a US business taken over by a UK-based rival, who became group CEO in London but was forced to take a pay cut for the promotion.

Patterson agreed the "bureaucracy and compliance has become excessive" in the UK, saying that much of the commentary now required in UK annual reports boiled down to box ticking.

Anxiety about executives' rewards is not unique to the UK, noted Tom Glocer, who ran London-listed Reuters and then Canadian-controlled Thomson Reuters between 2001 and 2011. As a member of the compensation committee at Publicis, the French advertising group, he noted similar worries about an executive brain drain from France.

Nor is hostility to high pay new, Glocer said. Even in the 1990s, British Gas faced "fat cat" protests under US-born chair Richard Giordano, while EMI struggled to defend how much it paid another US executive "Lucky Jim" Fifield.

It was "clearly wrong" that some US boards were willing to pay $100mn packages to people who were perfectly capable of running companies for less, Glocer said, but he questioned the more parsimonious and time-consuming approach across the Atlantic. "It's not all negative that there's this heavy measure of suasion in Europe to contain [high pay] but the balance is often off . . . and the time waste is enormous."

Comparative pay figures for senior executives in the US and UK do miss the fact that the US has many far larger companies. One New York-based British executive said: "There are more, bigger roles here than there."

Tom Gosling, executive fellow at the London Business School, said the average size of companies worth more than $10bn in the US was higher than the comparable cohort in the UK given its megacap tech stocks. "So the 2x or more difference in pay levels . . . is probably a bit overstated. Over many years comparing CEO pay in the US versus the UK and Europe, I developed a rule of thumb that for comparably sized companies, CEO pay was about 50 per cent higher [in the US]."

'You get to earn more money in the US. And there is no public outcry if you're successful'

He noted that this gap had "probably gone up recently, as UK pay has been broadly flat over the years (with some ups and downs) whereas US pay has continued to rise at 5 to 10 per cent a year".

But he added: "Although CEO pay has become more of a political issue in the US, the 'outrage constraint' is still lower." In the US, the investor "say-on-pay regime" remains advisory, he added, as opposed to binding in the UK.

For some British executives, it is not just the pay but also the culture that is attractive in the US. Richard Harpin, founder of former FTSE 250 services group Homeserve, which was bought this year by Brookfield's infrastructure funds, said there was no better place to start a business than the UK. But Harpin added there was "no doubt that entrepreneurs were more applauded in America."

There was a sense in the US that investors were more focused on long-term growth, he said. "This is why we are seeing a number of businesses move a London listing to a dual to just the US. The UK stock market needs long-term investors and businesses that are better valued."

For companies, whether or not it makes sense to move will depend more on how much of their business and shareholder base is in the US than what they can pay their executives. Patterson said tech-based companies were undoubtedly better suited to the US, offering high valuations, and stronger analyst and investor coverage.

That view was echoed by Endava, an IT services company that moved its listing from London to New York five years ago. "We thought [US investors] would understand our story better," said Mark Thurston, its chief financial officer. "They understand what we do. They didn't in the UK."

As for the role executive pay played in its decision to move, he noted that "nobody [in the US] would blink an eye" at the $3.7mn John Cotterell, Endava's founder CEO, earned last year.

"I think there is more sensitivity in the UK but would it drive decisions about [whether] you want to work for a US-listed company? I don't know," Thurston said. In Endava's case, at least, "Comp didn't come into it at all."

Pay may be a larger factor in other industries, according to Glocer, who also sits on Morgan Stanley's board and pointed to banks as "probably the worst case". If an executive has decided early in life on a career in banking, he said, "It's all about the Benjamins [dollars]."

Dear Jonathan

YOUR QUESTION FOR OUR EXPERT — AND READERS' ADVICE

Is it unwise to leave my well-paid job to pursue a film career?

This week's problem

Over the past five years, I have had a very successful career at a leading commodities company — and have a salary to match. However, I have never really enjoyed my work. I have long aspired to work in film, where I know it can be very difficult to succeed. Do I prioritise a standard, reliable, mundane career that pays well, or take the plunge and pursue my creative ambitions? **Female, 20s**

Jonathan's answer

The elements of what makes working life enjoyable are different for each person and can change at each stage in their life. You have a successful, reliable career with a good salary.

However, this is not satisfying you at the moment. There may come a time when such elements will be enough, but for now you are willing to consider trade-offs to pursue creative ambitions and enjoy your work more.

Seetha Kumar, chief executive of ScreenSkills, a training and career development organisation for the film, television and game industry, said, "If something is calling you, it's not too late."

Before taking the plunge and leaving the steady pay cheque, apply your research skills that make you successful in the commodities industry to the film industry.

Kumar noted there are career maps on the ScreenSkills website for more than 270 roles in the industry, and she encourages you to explore those. Which positions excite you and pique your curiosity? This is an industry about storytelling, and everyone involved can feel part of supporting that creative process. Kumar suggested that you assess what transferable skills you have that you can and want to use. These may include communications, logistics, finance and negotiation skills while remaining calm under pressure. All useful for location and production managers.

Many roles in the industry are freelance and project based; this can give great flexibility and allow you to pick and choose locations and projects but would be a transition for you from your "reliable mundane" career.

Talk to some people in the industry who made the move (and maybe some who moved back as well) to learn how they adjusted.

The industry is attractive, it's still growing post-pandemic, is supported in the UK by government, and innovating continually. There is an accepted and welcome career path for people transferring in from other lines of work, from accountants to army officers, through ScreenSkills' Trainee Finder scheme.

From the fact you are asking the question, it seems you are ready to make the move to pursue what you love, or at least find out if this work can be sustaining and enjoyable. You are early enough in your career to act to avoid a future of unfulfilling work; follow your aspiration of working in film, identify some specific roles, gain some training, then take the plunge into an exciting and creative new world.

Readers' advice

Are you prepared to make the lifestyle change that losing your big income, and replacing it with a smaller one that you will work harder for, will bring? You will start at the bottom. **Sam_economist**

I worked in the cinema industry for five years. Pros: it can be fun and sociable. Cons: it's extremely political. What you win or lose seems to be dictated by luck and individual self-promotion. **JavaAndHorses**

Use the cash you earn from your day job to fund your passion for film as a side hustle. For example investing in and producing films. A CFO I worked with had a passion for theatre and used his cash to produce Broadway shows. **Randomavr**

The next problem

I have worked in financial markets for about 35 years. I work for a fund I helped build from scratch, but I want to see out my final few years working remotely overseas. How should I sell this to my employer and my team? I will work just as hard and be just as dynamic, but at the same time feel more driven and creative with a fresh context away from the UK. **Male, 50s**

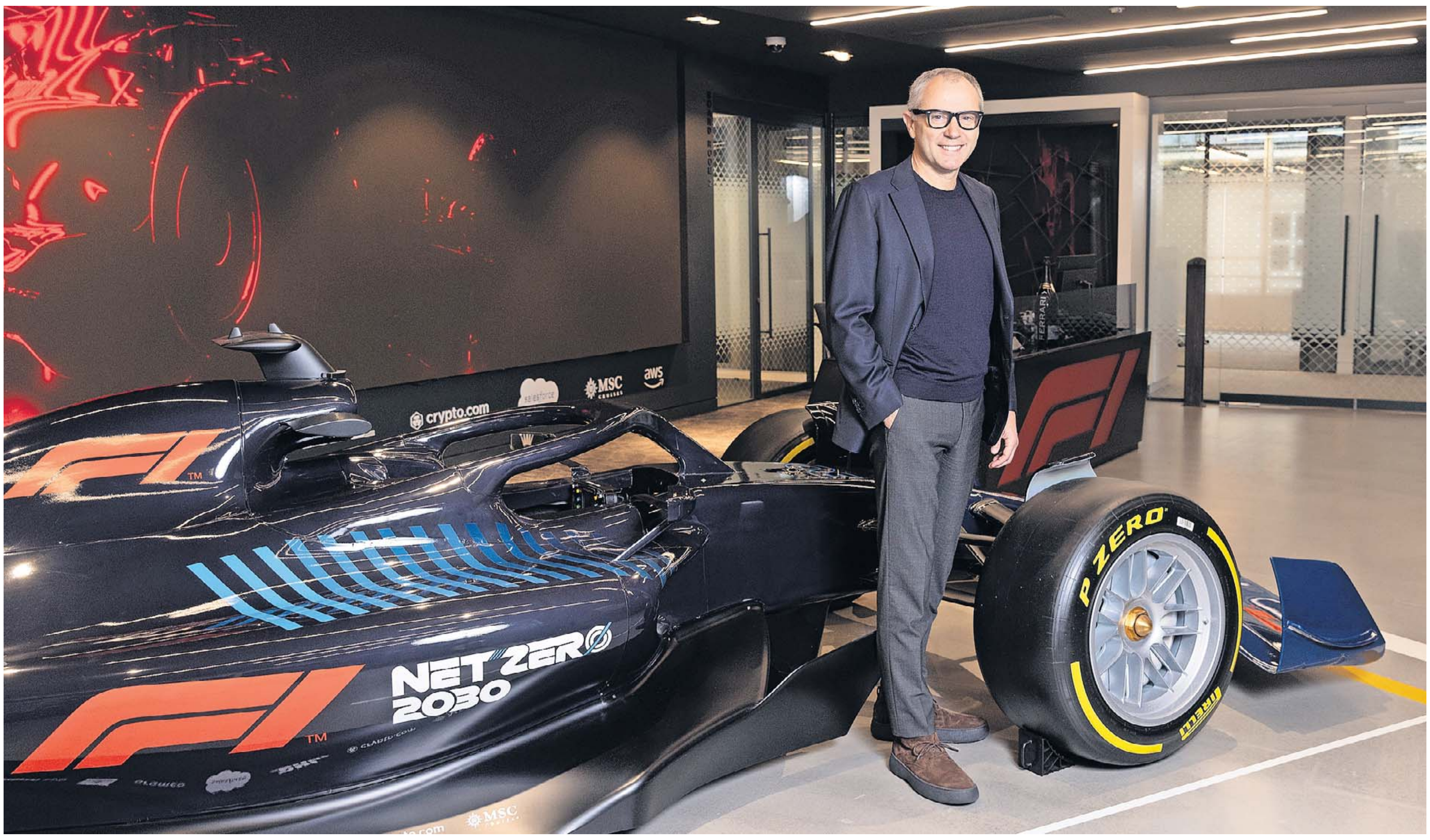
Jonathan Black is director of the Careers Service at the University of Oxford. Every fortnight he answers your questions on personal and career development and working life. Do you have a question for him? Email: dear.jonathan@ft.com

WORK & CAREERS

Leadership. Stefano Domenicali, chief executive, Formula One

'You cannot do anything alone; you need to have a good team'

The Italian counters team rivalries with calm management as he expands the car racing series, writes *Samuel Agini*



Stefano Domenicali denies F1 has become less competitive, saying that 'what we did in terms of financial regulations will help to minimise the gap on the technical side' — Anna Gordon/FT

The management style of Formula One head Stefano Domenicali is not exactly a private matter.

Netflix's behind-the-scenes documentary series *Formula 1: Drive to Survive* has broadcast to millions the sensitivities of dealing with racing drivers, their team managers, billionaire owners and sponsors, as well as the heads of state and royals involved in motorsport's elite car racing series.

In the latest season, Domenicali's leadership is tested at a meeting of team chiefs, including Toto Wolff, head of Mercedes, and Christian Horner, his counterpart at Red Bull. The perennial rivals are locked in a row over new car design regulations and, as tempers fray, Domenicali intervenes to defuse the situation. The discussion would continue "in the proper way" with the Fédération Internationale de l'Automobile, the sport's governing body, he tells the gathering of team managers.

Reflecting on the incident at F1 headquarters in London, Domenicali says knowing the team managers on a personal level was important to how he handled the situation. "These kinds of things you learn how to deal with the more you see [them] happening and the more you understand the people. Every one of us is different, so you need to respect that."

Domenicali claims to have "zero ego" and "never" shouts. "That's the beauty of it, you take one ego less."

As a former Ferrari team principal, he knows the pressures the likes of Horner and Wolff face, from managing championship-winning drivers such as Max Verstappen and Lewis Hamilton, to motivating engineers and aerodynamicists to build the best cars.

Formula One is expanding quickly. US owner Liberty Media, which acquired F1 in an $8bn deal in 2016, has redrawn the economics of the sport: it shares revenues more evenly among teams, introduced spending limits on the development of cars to boost competition and transformed the way it engages with fans on social media.

> 'What is the weight of a demanding business if you like it and you're motivated to do it? Zero'

A Miami Heat basketball net hanging on the wall opposite Domenicali's desk is a souvenir following the addition last year of a Grand Prix in the US city. F1 will race in Las Vegas this November for the first time in four decades.

Annual revenue increased by 20 per cent to more than $2.5bn in 2022 due to higher fees paid by race promoters, increased media rights, sponsorship and attendance at the Paddock Club hospitality business.

But for all the efforts to boost engagement, the sport has been lacking excitement at the front of the grid. Verstappen won 15 of 22 races in 2022. His Red Bull team has more than double the points of their nearest rivals this season.

For fans lured in by *Drive to Survive*, does Red Bull's dominance threaten F1's ability to keep their attention? Speaking at the Financial Times' Future of the Car conference in London last week, Domenicali said he would "totally disagree" that F1 had prioritised entertainment over the sport itself.

"This year, we need to say the truth: Red Bull did a better job than the others, it's a fact. But I would be imprudent to say the championship is finished," he told the audience. "We cannot intervene in the performance of the teams. I am sure what we did in terms of financial regulations will help to minimise the gap on the technical side."

Meanwhile, some former staff and others who know him say Domenicali is a little "old school" — he prefers staff to be physically present at the office and travel to races. It's a demanding schedule: the season runs from March to November and has expanded to 23 races this season from double-digit teens in the 1990s.

At F1 headquarters, where the meeting rooms are named after legendary racing personalities such as Juan Manuel Fangio — but also nod to Hamilton's vegan bulldog, Roscoe — the chief executive is relaxed about the pressure. "What is the weight of a demanding business if you like it and you're motivated to do it? Zero," he says.

"We are lucky . . . It's hard work, yes, but look around, we are in a business of entertainment." He adds that if people creating the entertainment are not happy, "there is a problem". "So if you want to be here, you need to be fully dedicated to the job, with the right enthusiasm."

The Italian says his approach is to treat people the same, whether presidents or his gardener. "It's my style, take it or leave it. I'm not able to have a mask in front of me".

"People that are not smart believe there is only one style to expand the business that you're responsible for. I've proved I'm able to be the same, here, in this chair, and if you come with me on holiday with my family, with my friends . . . I don't change."

Born in Imola, home to the circuit where Brazilian three-time F1 world champion Ayrton Senna succumbed to a fatal crash in 1994, Domenicali started his career at Scuderia Ferrari and later saw German driver Michael Schumacher dominate the championship in the early 2000s.

"I learnt the fact that you cannot do anything alone; you need to have a good team, the strongest team ever, actually," he says of his time at Ferrari.

In 2014, he quit three races into the season after Ferrari's on-track performance slumped. "I have no fear to take responsibility when I think it is right to do certain things," he says. "I started the job after university, so you can imagine it has not been easy, but you need to be rational."

He worked at Volkswagen's Audi brand — where the diesel emissions scandal thwarted a potential entry into F1 — and then joined Lamborghini.

As F1 chief executive he has helped convince Audi to return in time for 2026, when new power units, which will be more efficient and use more sustainable fuel, are due to come into play.

A bigger test of his persuasive capabilities came in March 2022 ahead of the second Saudi Grand Prix in Jeddah. When a Houthi missile attack struck a Saudi Aramco oil storage facility in the build-up to the race, the smoke that billowed into the air was visible from the circuit. Spooked, the drivers debated whether or not to race.

"To see such an incredible, dark mushroom of smoke 12 miles from where you are is emotionally quite strong," says Domenicali.

The stakes were high. Despite criticism from human rights groups, Saudi Arabia has become an important market for F1, critical to Liberty Media's expansion in the Middle East. State-owned Saudi Aramco is among F1's global partners, the highest bracket of sponsorship in the sport, while teams such as Aston Martin and McLaren rely on Saudi sponsors.

What was already "not an easy moment" was amplified by social media, says Domenicali. The race went ahead after late-night meetings with the drivers in which Domenicali passed on assurances from local authorities and explained the safety measures in place.

"If you follow the emotion, you will most likely go in a direction that is wrong," he says. "Lead by example means that I was there. If I was the first to be worried, I'm not so stupid to leave there . . . and to say, 'I go and you stay'. Everyone understood and they trusted us."

> 'I have no fear to take responsibility when I think it is right to do certain things'

More recently, the expansion into Saudi Arabia has led to speculation that the oil-rich Gulf state's sovereign wealth fund would be keen to acquire F1.

A Bloomberg News report in January that F1 had drawn takeover interest from the Saudi Public Investment Fund prompted a firm response from FIA president Mohammed Ben Sulayem. He tweeted that the governing body was "cautious" about the "alleged inflated price" of $20bn, including debt, and warned that any suitor should bring more than "just a lot of money".

F1 and Liberty Media decided not to respond publicly, but in a letter to the FIA president that was leaked to the media, they warned his comments "overstep the bounds of both the FIA's remit and its contractual rights" and that the FIA "may be liable" if the president's tweets "damage the value of Liberty Media".

Ben Sulayem subsequently stepped back from day-to-day involvement in Formula One.

"If you want to do something, you don't have to shout or to announce," says Domenicali of his attempt to resolve the matter privately, "and you do what is in the best interest of the business that you're responsible for, as simple as that. Everyone is different, but this is me."

FT **Working It**
The FT's workplace podcast and newsletter provides expert analysis and key takeaways to keep leaders and managers up to date with post-pandemic trends and help make sense of the big news stories shaping the global world of work.
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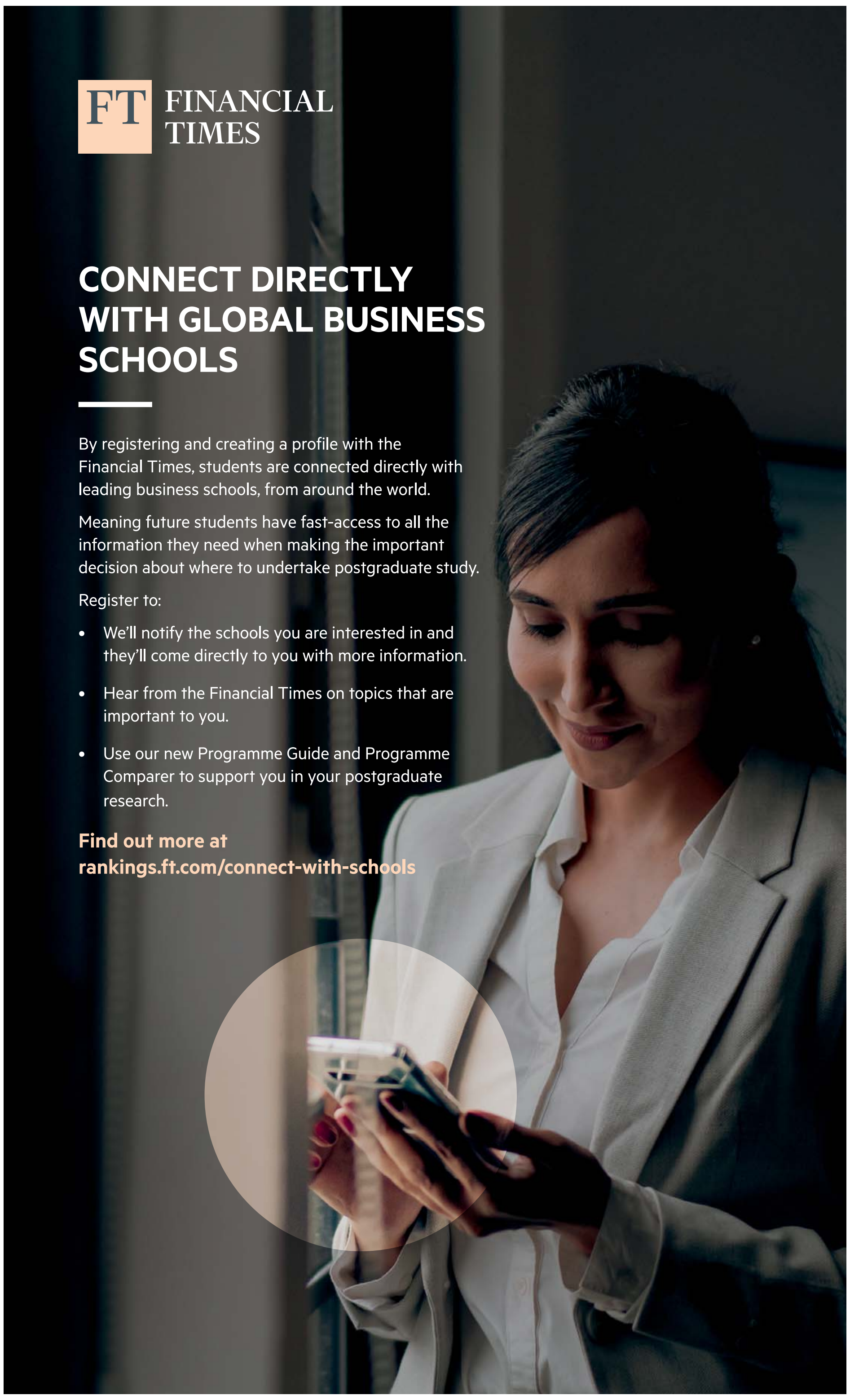

ARTS

Sweden wins Eurovision nailbiter

POP

Eurovision Song Contest 2023
Liverpool Arena

Ludovic Hunter-Tilney

It's rare for history to be experienced as tragedy and farce simultaneously. The tragic element of the 2023 Eurovision Song Contest was provided by the war in Ukraine, which forced the staging to be held outside the country following Ukrainian victory last year. Meanwhile, the farce lay in the usual Eurovision motley of warrior-queens, devilishly outfitted German metallers, bearded balladeers and a Czech girl group waving their plaited ponytails like lassos.

Liverpool was the host city, a stand-in for Lviv or Kyiv. The show opened with last year's winning song, Kalush Orchestra's "Stefania". This hearty but forgettable folk-rap anthem benefited from a sympathy vote in 2022, casting the frontrunner, the UK's Sam Ryder, into second place.

Eurovision is primarily a televisual spectacle, with 161mn people tuning in from participating countries in 2022, but its many moving parts can be a recipe for chaos. This year's final was held at the Liverpool Arena in front of a raucous audience of 7,000. The four-hour show felt snappier than its marathon length. It looked stylish on TV, and was well compèred by a mixed set of presenters from the UK and Ukraine.

After a week of elimination rounds, 26 countries were represented, an alphabet of high hemlines and high notes. A frisson of excitement went through Eurovision obsessives at the appearance of Austria's first ever female duo, Teya and Salena. This minor footnote in musical history took the form of an electronic pop curio called "Who the Hell Is Edgar?", inspired by the writer Edgar Allan Poe. "Nevermore," quoth the raven; and so, alas for Teya and Salena, quoth the judges and voting public too. The song came 15th.

Launched in 1956, Eurovision has evolved its own style of songcraft, adjacent to but separate from the mainstream pop charts. "Who the Hell Is Edgar?" epitomises one strand, the novelty song. Other examples included Finland's entry, Käärijä's "Cha Cha Cha", a lurid mash-up of EDM, death metal and beerhall singalong whose staging involved much tongue-waggling from its singer and a cheery human centipede of dancers. This monstrosity proved mystifyingly popular in the public vote.

Top: Swedish singer Loreen won the contest with 'Tattoo'. Above: Finland's Käärijä proved popular in the public vote
Aaron Chown/PA

Croatia's Let 3 played a quirky anti-war song in their underpants, which sounded every bit as messy as its presentation suggests. The Ukraine conflict overhung proceedings, most notably during an interval rendition of "You'll Never Walk Alone" featuring massed ranks of singers in Liverpool and more in a live feed from Kyiv. However, Ukraine's president Volodymyr Zelenskyy's request to deliver a video address was refused on the grounds of politicisation. Meanwhile, the Ukrainian entry, a duo called Tvorchi, held up a sign reading "Ternopil" as the votes were read out. It was the name of their town, which was bombed with murderous choreography by Russian forces at the precise moment that they were performing.

The other main types of Eurovision songwriting were well represented. Emotive balladeers made imploring hand gestures in weepies that began with a drizzle of piano chords before building to fortissimo peaks of sentimentality. Italy's Marco Mengoni was the leading example with "Due vite", which came fourth. Turbo-folk with musicians dressed like characters from *Game of Thrones* was prominent, including an unusual Scandinavian variant, Alessandra from Norway's monumental "Queen of Kings", which won the popular vote, although not the judges' scores.

Euro-dance is the other central pillar of the Eurovision sound. Israel's singer Noa Kirel pulled out the stops with a thunderous Gaga-esque ode to the "power of a unicorn". The bookies' favourite, Loreen's "Tattoo", found the Swedish singer performing perilous handography with her immensely long fake nails as she belted out a no less full-bore dance anthem.

For Britain, Ryder's success in 2022 wasn't replicated. Mae Muller's "I Wrote a Song", a breezy pop number with a static staging, came second last, just above the crestfallen German heavy metallers. But lightning struck twice for Loreen, a prior winner in 2012. The long nails came in for a bit of biting at a late charge from the Finnish horror show, but she was ultimately victorious. To Sweden the spoils, namely the right to host next year's competition, on the 50th anniversary of ABBA's famous victory. History repeats itself, Eurovision-style.

CLASSICAL

Renée Fleming/Evgeny Kissin
Kennedy Center, Washington DC
★★★★☆

Clemency Burton-Hill

Sometimes, long-venerated musical superstars decide to pull out all the stops, as if to proclaim their continuing greatness (and relevance): to tell us they are still here. Others just show up in all their understated glory, making us *know* they are still here: no telling required.

True, operatic soprano Renée Fleming chose to wear two diva-worthy gowns — one claret red; one burnished copper; both boasting long trails — for her hometown lieder recital on Wednesday evening at the Kennedy Center. But that was the sole nod to surface glitter in what was a quietly powerful chamber recital with her friend, equally venerated virtuoso pianist Evgeny Kissin.

After a slightly faltering start, at the beginning of Schubert's "Suleika I", they soon hit a vein of conversational truth with the barest of raw materials — a human voice, some piano keys, poetry, music — that was to build in subtlety, intensity, drama and depth over the course of the evening. And we were reminded that, when ingredients such as those are executed like this, there's almost nothing more musically satisfying than a small, intimate, gemlike *Lied*.

The concert contained great humour, with Schlegel's human-scoffing avian flock in Schubert's "Die Vögel", and great melancholy, with Liszt's goosebump-inducing setting of Victor Hugo's "Oh! quand je dors". Phrasing, colour and tempi were chosen with intention, and artfully drawn, never over the top. In Schubert's "Rastlose Liebe", Fleming reminded us of her skill as singer-actor, imbuing flair into Goethe's affecting words ("forward, always forward!").

She exhibited this instinct elsewhere, including in Liszt's "Freudvoll und Leidvoll". When, in Rachmaninov's "A Dream", she sang the line "It has magic stillness", I thought: agreed. Or Liszt's "Im Rhein, im schönen Strome", when we were transported from the Potomac to Cologne without moving from our seats. Some feat, that.

Meanwhile, in Kissin's solo interludes — including Liszt's "Sposalizio" and "Valse oubliée" — we were treated to his superb grasp of chromaticism. His touch, it seemed to me, was somehow improved since the last time I saw him in live performance, pre-pandemic, and there was no trace of the almost frantic intensity which I had found off-putting. Instead, he seemed relaxed, cheery, receptive to the audience, while his command of dynamics, discord and resolution was masterly.

Of course, there were the usual keyboard pyrotechnics, proving that he's still "got it" — in case anyone was wondering — but what impressed most was the delicacy and spareness of his playing. Almost as if, at 51, he has taken a few steps back and found a new quietude; a meditative perch from which to observe this world, and breathe. In these moments, the audience had a chance to exhale, too.

This was a beautiful recital, devoid of gimmickry. After the duo had performed Schubert's "Ave Maria" as their first encore, Fleming addressed us directly. "It's like the old good days," she exclaimed, apparently genuinely moved. "It's such a joy." She added, "Feel free to leave, but we have a few more encores to do for you."

Nobody left. There was more Rachmaninov, and then a contemporary number, Kevin Puts's yearning-laced "Evening". (Puts composed *The Hours*, which was premiered by the Metropolitan Opera this season, co-starring Fleming.) A certain note of shimmering wistfulness in the text seemed to reflect the moment perfectly. "Even though the stars are so far away." Are they? I wondered. Then — looking at these retreating stellar musicians, hand-in-hand — I decided: not here. Not yet.

kennedy-center.org

Intimate: soprano Renée Fleming
VCG via Getty Images

Investors' Chronicle

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Can comedy and chemistry save the UK?

PODCASTS

Fiona Sturges

Shortly after the inauguration of Donald Trump in 2017, a new podcast launched in which former White House staffers under President Barack Obama — Jon Favreau, Jon Lovett, Tommy Vietor and Dan Pfeiffer — mulled over political events. Billed as the progressive answer to conservative talk radio, the twice-weekly *Pod Save America* was chatty, clever and unashamedly partisan. It was also funny, which is a tall order in a fast-moving political podcast. Such was its success — it averaged 1.5mn listeners per episode — it spawned HBO TV specials and audio spin-offs including the foreign-policy-focused *Pod Save The World*.

Now, six years later, a British version has arrived. *Pod Save the UK* is hosted by journalist Coco Khan and comedian Nish Kumar. If its arrival feels long overdue — if *Pod Save America* held liberal listeners' hands through the Trump years, left-leaning Brits could surely have done with the same during Boris Johnson's turbulent premiership — there is still plenty for the hosts to chew on as the cost of living crisis deepens and the country prepares for next year's election.

The series kicks off with confidence with a one-off conversation with Favreau, Lovett and Vietor, who compare political notes with Khan and Kumar. Much comic mileage comes from identifying the differences in the respective political systems of the UK and the US. "I think it's very cool that when your party wins, they get to implement their agenda. We don't have that," says Lovett sardonically.

The latest episode is called *Protest, Eurovision and Showgirls*. Among the topics is the controversial new Public Order Act, which allowed police to arrest a number of anti-monarchy protesters during the King's coronation earlier this month. The hosts interview the barrister and environmental activist Paul Powlesland, who made headlines recently by climbing a tree that was about to be cut down in Northamptonshire, and who examines what the new law means (conclusion: the wording is vague and open to exploitation).

If that makes it sound a bit serious, the tone is anything but. Khan and Kumar have chemistry and an unruly energy, and the ratio of serious to funny is expertly judged. There are noticeable differences between the US and UK editions: the hosts of *Pod Save America* are former political insiders armed with huge amounts of knowledge on the workings of power, while the UK version provides more of a baffled outsider's view.

This feels right given that *Pod Save the UK*'s biggest British rivals — LBC's *The News Agents*, with Emily Maitlis, Jon Sopel and Lewis Goodall, and *The Rest Is Politics*, with Rory Stewart and Alastair Campbell — broadcast from inside the Westminster bubble. Both those shows have their merits, but there is a gap in the market for a political series that understands what is annoying voters and treats its listeners as equals. *Pod Save the UK* fills that gap nicely.

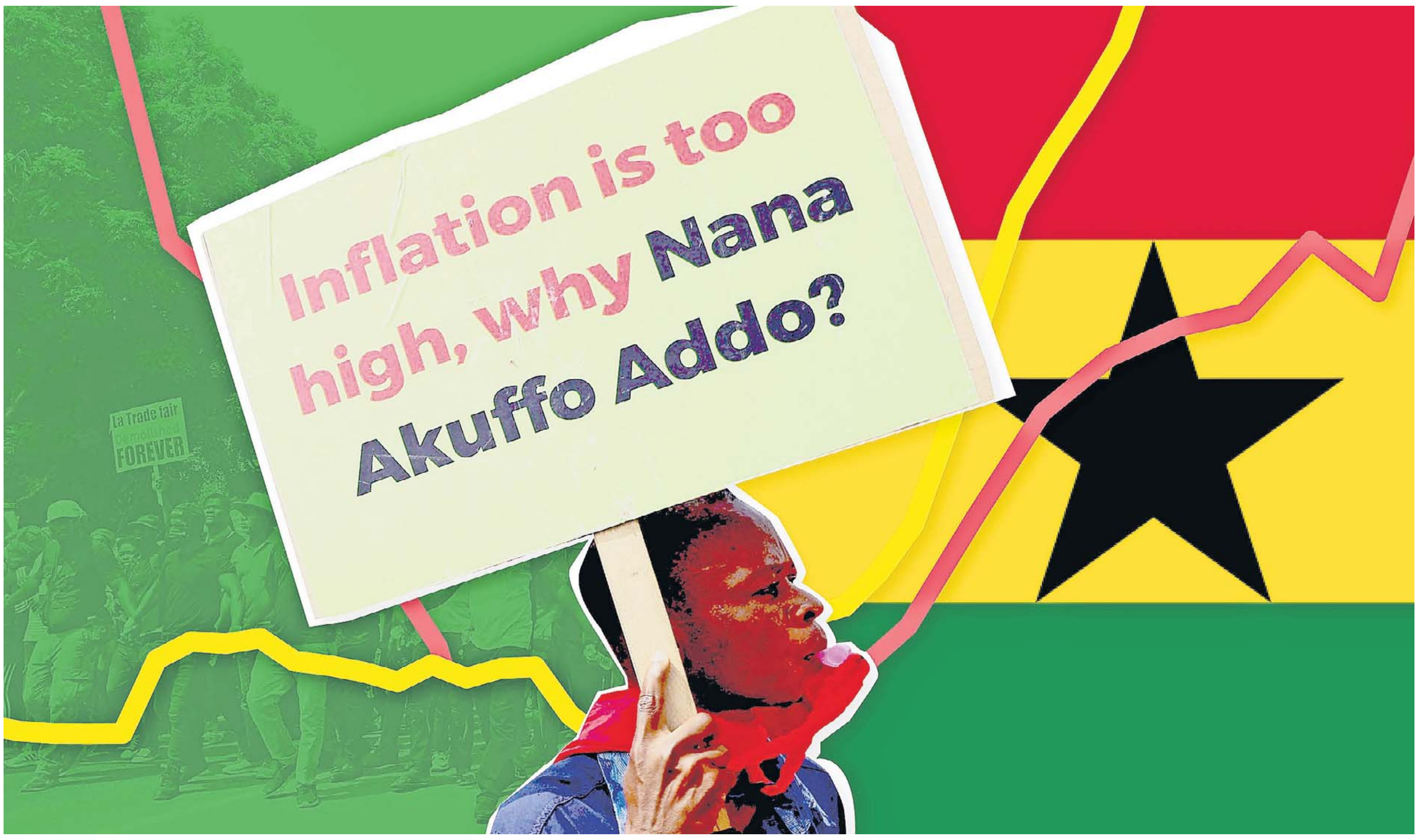
crooked.com/podcast-series/pod-save-the-uk

Police reaction to anti-monarchy protests at the Coronation is addressed in 'Pod Save the UK' — Getty

FT BIG READ. AFRICAN ECONOMY

A success story has become a cautionary tale for other countries on the continent that overspent in an era of cheap debt. As the president pushes bold projects, many citizens are questioning his priorities.

By Aanu Adeoye



How Ghana lost its way

In the centre of Accra lies a deserted construction site that is a symbol both of Ghana's ambitions and its afflictions.

Here is where the National Cathedral of Ghana is set to be built — the passion project of the country's president, envisioned as a national landmark and a centre of religion to rival Westminster Abbey and Abu Dhabi's Grand Mosque.

Sitting just off the major thoroughfare of Independence Avenue, the multimillion-dollar development was proposed in 2017, the year Ghana celebrated 60 years free from British rule. Once completed, it will be a 5,000-seat place of worship to accommodate formal events such as state funerals.

But six years on, President Nana Akufo-Addo's grand vision has stalled — while the economy he presides over is in tatters and citizens struggle under the weight of crushing inflation.

The building project is a cautionary tale not only for Ghana but for many countries in Africa that overspent on infrastructure and now face the bill.

Ghana has long been considered a success story and a model for African development. It is a major producer of gold and cocoa and has one of the region's highest gross domestic product per head. A robust democracy since the early 1990s, it has a relatively well-run government that provides decent levels of public service, including free education, and a thriving tourism industry.

The current government, in particular, burnished an image of fiscal responsibility and technocratic nous, something that enabled it to tap commercial debt markets at decent rates of interest.

That reputation now lies in ruins. Ghana had just agreed a $3bn bailout from the IMF when it defaulted on its debts last December, a fate that could soon befall 19 other countries on the continent, according to the fund. Like Ghana, many have borrowed heavily to fund projects — whether railways, roads, ports or airports — that have failed to generate enough income to pay back debts, particularly in an environment of high interest rates.

To further complicate matters, the threat of insecurity is now on Ghana's doorstep due to unrest in neighbouring Burkina Faso, the new epicentre of the jihadist upheaval in the Sahel, the semi-arid strip south of the Sahara.

Yet despite this uncertain outlook, the president remains committed to building a cathedral to serve the country's 33mn population, 71 per cent of whom are Christians. "The National Cathedral is an act of thanksgiving to the Almighty for his blessings, favour, grace and mercies on our nation," Akufo-Addo said in January after visiting the site and pledging 100,000 cedis ($8,500) of his own money towards the build.

Many in Ghana are questioning his priorities. About 87 per cent of Ghanaians think their country is heading in the wrong direction, according to data from the Accra-based polling company Afrobarometer. They blame the government and protests have broken out in the past year over the high cost of living.

Just as the citizens of Ghana are asking how badly Akufo-Addo, whose two terms in office end next year, has mismanaged the economy, there are similar questions around the unfinished cathedral.

The building's price tag has surged to $400mn, four times the original budget. The government says that donors are being wooed to help pick up the tab — and allow construction to continue — but it has contributed most of the $58mn that has already been spent.

Paul Opoku-Mensah, the project's executive director, says the edifice, which is being designed by the prominent Ghanaian-British architect Sir David Adjaye, will serve as a national monument, tourist magnet and economic masterstroke that will eventually pay for itself upon completion.

"In a country where politics is so divisive, you need a structure to help build cohesion outside of the political parties," says Opoku-Mensah. "And the church becomes such an institution."

But instead of being an emblem of unity, for some in Ghana it has become representative of all that has gone wrong here in the past few years — a mothballed site nicknamed, derisively, the "world's most expensive crater".

Pain of inflation

In Accra's sprawling Makola market, shopper Tracy Aloko has more immediate concerns than national monuments as she looks wistfully at the bag of tomatoes she has just bought.

The same quantity cost about 20 cedis in January, she says. Now, shaking her head, she complains that the same bag costs 50 cedis. And this is a good deal — another vendor just tried to sell her the same amount for 60 cedis.

"It's like hell," Aloko says, rattling off household items whose prices have skyrocketed in recent months. Not only are tomatoes, the building blocks of Ghanaian soups and stews, more expensive, but so is garri, the granulated cassava flour that is a food staple.

With inflation squeezing Ghanaians, many are asking just how badly President Nana Akufo-Addo has mismanaged the economy over his two terms in office. Below right: the government says it is wooing donors to ensure construction continues on the National Cathedral project designed by Ghanaian-British architect Sir David Adjaye

FT montage: AFP/Getty Images; Adjaye Associates

'It felt like the people in charge could no longer manage things'

Ama Mary, the market woman who served Aloko, says the cost of the produce has partly shot up due to the Islamist crisis in Burkina, from where Ghana imports a sizeable amount of its tomatoes annually.

Ordinary people such as Aloko and Mary are on the frontline of Ghana's economic crisis, and struggling to adapt to record levels of inflation. Although it has dipped from the two-decade high of 54 per cent in December, inflation remains at 41.2 per cent.

"Life is hard for everybody in Ghana," says John Asafu-Adjaye, a senior fellow at the Accra-based African Center for Economic Transformation (ACET) think-tank. "But the ones feeling it the most are those in the low socio-economic groups."

The daily minimum wage was increased by almost 10 per cent to 14.88 cedis at the beginning of the year but it is only a tiny reprieve in the face of astronomical price rises.

The government says Ghana's economic misfortune has been caused by the external shocks of Covid-19, which ground the economy to a halt, and Russia's invasion of Ukraine, which sent global food and energy prices soaring.

Ernest Addison, governor of the Bank of Ghana, the country's central bank, says the decision of the three big rating agencies to downgrade Ghana to junk status made the economic situation "more complicated" in 2022 as prices climbed steadily. "All the external forces were against us, with Russia-Ukraine, the cost of imported food going up and on the exchange rate we had no access to foreign capital," he adds.

But analysts say this account only tells half the story. James Dzansi, chief Ghana economist at the International Growth Centre, an Oxford university and London School of Economics-backed global think-tank, argues Ghana was "walking on thin ice but not sinking" before the pandemic hit.

The government borrowed heavily to insulate the economy from its effects and may have avoided a recession as a result. But the country's debt as a percentage of GDP went from 62.7 per cent in 2020 to more than 100 per cent last year, according to finance minister Ken Ofori-Atta. Debt servicing now takes up about 70 per cent of government revenue.

Despite this growing debt load, the ruling New Patriotic Party resorted in 2020 to a habit that Dzansi says bedevils politics in Ghana: overspending in an election year.

The administration stopped charging for mains water and brought in cheaper tariffs on electricity. Analysts say the policy could have been most effective if it targeted those most in need of assistance in a difficult year; instead, it was widely available to everyone, including city-dwelling urbanites.

"The government saw an opportunity in leveraging the Covid pandemic to engage in reckless expenditure in view of the 2020 election," Dzansi says. "You warm the temperature and the thin ice broke."

Perils of cheap money

Much of the Ghanaian government's spending took place in a world of low interest rates. Ghana gorged on cheap money, raising almost $17bn in eurobonds that the Ministry of Finance frequently said were oversubscribed for nine straight years.

But as central banks began raising rates to control inflation — the Bank of Ghana has raised rates by 1,250 basis points since March 2022 — Ghana found itself shut out of international debt markets as concerns grew over its ability to repay what it owed.

The government has since been forced to rely heavily on a domestic capital market, where interest rates are as high as 40 per cent, and central bank financing of 37.9bn cedis ($3.2bn) in 2022. Some of the money being injected into the economy by the central bank may have helped to fuel inflation, says Henry Telli, an economist at the International Growth Centre.

Telli says Ghana's government should have "consolidated" in 2021 by applying "very strong brakes on government spending" the year after the election and should have asked the IMF for help sooner than it did. "Politically, the IMF may not be popular but it is an economic tool," Telli adds. "It's available to use when you need a different strategy."

Ghana did eventually seek relief from the IMF in 2022 as it became apparent that its economy needed outside assistance. "We have our own issues with the IMF but we saw that the country needed external help," says Mensah Thompson of Asepa, an anti-corruption group that helped organise protests calling on the government to seek aid. "It felt like the people in charge could no longer manage things."

Ghana speedily reached a staff-level agreement with the IMF for a $3bn loan in December, pending approval from the fund's board if the country meets some conditions it has set out. In an unprecedented move, Ghana has had to restructure its domestic debt.

Now, it has to restructure its external debt of about $34bn, most of which it stopped paying in December. Ghana's bilateral creditors have formed a committee led by France and China to begin debt restructuring talks, clearing the way for the IMF's board to approve the country's rescue package.

Ghana additionally has to stop central bank financing to plug the government's revenue shortfalls. Addison, the central bank governor, told the Financial Times this month that a "zero financing" agreement had been signed with the finance ministry. The government must also increase revenue generation. To achieve this, it introduced new company and income taxes, higher excise duties on goods including tobacco and alcoholic drinks, and raised VAT by 2.5 points to 15 per cent.

Cleaning house

The new taxes are already proving controversial. Joseph Obeng, president of the Ghana Union of Traders Association, a trade body, calls them "obnoxious", adding that they will further increase the cost of doing business.

He asks why the government is targeting the few who pay formal taxes and not widening the tax net to bring in more people in the informal sector, which is estimated to make up at least 80 per cent of the economy. At around 13.4 per cent, Ghana's tax-to-GDP ratio is below the African average of 16 per cent and the government's own target of 20 per cent by this year.

'In a country where politics is so divisive, you need a structure to build cohesion outside of political parties'

The IMF deal, when approved, could help restore investor confidence in Ghana and slow currency fluctuations that have raised the cost of imports, says Asafu-Adjaye, of the ACET think-tank. But he cautions that it could take time before ordinary citizens feel its impact on the cost of living.

Analysts say they hope this economic crisis and the impending IMF programme will spur radical reforms in Ghana. There is a need to plug leakages that deny the government crucial revenues. A report by the auditor-general Johnson Akuamoah Asiedu says Ghana missed out on almost $3bn in revenues in 2021 due to what he described as "irregularities [representing] trade debtors, staff debtors and outstanding loans and cash locked up in non-performing investments".

But most importantly, there is a consensus among experts that the size of Ghana's government must shrink.

At the outset of Akufo-Addo's presidency in 2017, he defended his decision to appoint 110 ministers as a "necessary investment" for the country's transformation. At present, there are about 90 ministers, some of whom have two or three deputies. "It's jobs for the boys," says Asafu-Adjaye, who pointed out that there are many ministries with significant crossover. Ghana has separate ministries for transport, railways development, roads and highways, and aviation, for example.

Corruption is another concern. The country was rocked last month when a 2021 report was leaked to the press alleging that government officials have frustrated the fight against illegal gold mining. The government denies the allegations but opposition MPs are calling for a bipartisan investigation.

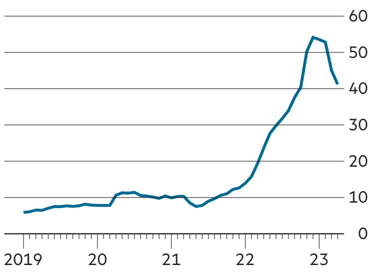
Kweku Bamford, a young shopkeeper, says he has no faith that the $3bn from the IMF will be judiciously spent, pointing to the auditor-general's report that showed some of the funds mobilised for Covid support were mismanaged: "Ghana is a corrupt country right now."

This perception is reflected in how some Ghanaians see the delayed cathedral — although not everyone has lost faith. Solomon Ntiamoah, a taxi driver on his way to a sermon in Accra's Black Star Square, is "praying for the project to go on".

Opoku-Mensah, the project director, still expects it to be completed by the end of next year. But unless Ghana can turn its economy around, Ntiamoah's prayers are likely to go unanswered.

Ghana's inflation rate has been falling but remains very high

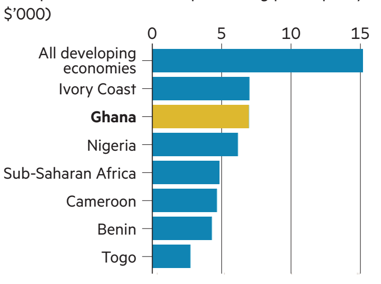
Annual % change in CPI



Sources: Refinitiv; IMF

Compared to its neighbours Ghana is a relatively prosperous country

GDP per head in 2023 (at purchasing power parity, $'000)



Data visualisation by Keith Fray

The FT View

FINANCIAL TIMES
'Without fear and without favour'

ft.com/opinion

The perils of economic forecasting in uncertain times

Economists need to be clearer about the limits of their predictions

"The only function of economic forecasting is to make astrology look respectable," the economist Ezra Solomon once said. It looks even less respectable today, as practitioners attempt to demystify the fallout from multiple shocks including the pandemic, the war in Ukraine, and the shifting geopolitical landscape.

Andrew Bailey, governor of the Bank of England, knows this only too well. On Thursday as the central bank raised interest rates by 25 basis points, he faced a host of questions over its large upward change to its growth and inflation projections. Economic forecasting is indeed an inexact science; but hefty revisions do little to reassure the public that central bankers know what they are doing.

It is not just the BoE that has been off the mark. The US Federal Reserve and European Central Bank have both erred in their inflation forecasting too, particularly since the onset of the pandemic. The IMF has also chopped and changed its recent growth outlooks. Given the role that forecasts play in informing the decisions of investors, households, and policymakers, accuracy is important. For central bankers a record of decent forecasting is also vital to build credibility, particularly as higher trust can help anchor inflation expectations.

Recent criticism of erroneous forecasts needs to be tempered. Economists have faced an unusually uncertain world since 2020. They have had to take positions on epidemiology, war scenarios, supply chain shifts, and rapidly evolving domestic and international policies. Another element is a limited public understanding of what forecasts actually represent. They are conditioned on judgments made at a particular point in time. As new data comes in, those judgments need to be recalibrated. They should be treated as indicative, not as gospel truth.

Economists still have some questions to answer. Central bankers were arguably too slow to raise rates when inflation picked-up in 2021, clinging to the notion that price pressures were "transitory". There were misjudgments over the effects of fiscal stimulus, how stable inflation expectations were, and the damage from the pandemic to supply, which contributed to monetary policymakers falling behind on inflation. The preceding decade of low inflation may have also lulled them into a false sense of security. Errors have been made during the rate-raising cycle too. Both the BoE and ECB failed to grasp just how sticky food inflation would be.

Forecasting can be augmented in a few ways. Recent shocks underscore the importance of drawing on expertise beyond the economics profession. Economists should also continue to explore how advances in big data, machine learning and AI can offer

> As new data comes in, judgments need to be recalibrated. They should be treated as indicative, not as gospel truth

opportunities to improve economic analysis and better model complexity.

Improving how forecasts are communicated, particularly in times of uncertainty, is essential. Showing projections under different scenarios can help deepen understanding of the range of possible outcomes. Likewise, although central banks have attempted to highlight the probability distributions around their forecasts, they could be conveyed in a more accessible way.

Above all economists need to be clearer in setting out how and why their key judgments have changed between forecasts — and how that affects the numbers. A greater effort to show how they reach their projections can go some way towards building trust and normalising an understanding of economic forecasts as reference points rather than foresight. After all, John Maynard Keynes, the famous economist, is often credited — perhaps wrongly — as asking: "when the facts change, I change my mind. What do you do?"

Opinion Technology

Beware the 'bad-ish' actor when it comes to AI

María Hergueta

Leo Lewis

During Google's big I/O showcase event for developers — a protracted, glistening flex of the company's new AI muscles — one of the keynote speakers dwelt on the risks posed by "bad actors".

The phrase, in the context of an otherwise self-consciously optimistic event, came with a balance of real and abstract threat. There was enough menace in the use of the term bad actor to reassure the audience that Google's human brains have duly considered the dangers of AI expanding very rapidly beyond the point of realistic control, but without enough specificity about the threats to dull the party spirit.

The mainstreaming of generative AI may indeed place ever more powerful weapons of mischief in the hands of scam artists, disinformation merchants and other unambiguously bad actors. We are right to fear this, and Google was right to break off, as it did, and acknowledge the tension that now exists at a company of this importance between what it can and should release on to the market.

> Companies underestimate the mundane villainy of those who will use the tech if it is there to exploit

But Google's tone made it look likely, at least for now, that the company will proceed on the basis that ordinary people can be trusted with quite a lot of generative AI. It may be underestimating, though, the mundane villainy of the bad-ish actor: those who do not actively seek out the dark potential of technology, but will definitely use it if it is just sitting there ready to exploit.

The problem was that as each of Google's new AI offerings flashed up on the screens, the risks felt less abstract and more real. The fact that Google, Microsoft and other tech titans are making a consumer and enterprise battleground of AI means that commercial competition has now in effect been instructed and freed to do what it does best: put as much as it legally can in our hands as quickly as possible. This means that the tools required to be a casual (but also very efficient) bad-ish actor will be ever more available.

There were two moments that stood out. In one, Google's executives demonstrated an AI-empowered translation software it was currently testing and which — by the company's own recognition — looks a lot like a user-friendly, highly powerful generator of deepfake footage. The Google division head admitted as much, describing the need for guardrails, watermarking and other safety measures that may, in reality, prove hard to enforce.

Video of a speaker talking in one language is played; their words are transcribed, translated and rendered back by the AI as audio in another language. The tone and lilt of the translated voice is adjusted to more closely mimic the speaker's and then the software re-dubs that over the original video. Spookily — though not yet perfectly — the AI then manipulates the tapes so that the new words are synchronised with the speaker's lips. Remarkable stuff — but also not terribly hard to imagine how the power to very quickly make people look like they were saying something they never did could be useful to both our bad and bad-ish actors.

In another demo, Google executives showed off the company's AI-powered Magic Editor — essentially a very quick and easy-to-use Photoshop-type tool that looks like it will allow even the not especially techie to alter photos and by implication change the history of an event or encounter with a couple of jabs of the finger.

The company's scenario was inevitably benign, and began with a photo of a tourist in front of a waterfall. Happy memories but — oops! — a prominent handbag strap she would rather erase. Jab! It instantly vanished. She wished the weather had been better on that trip. Jab! The sky was no longer granite-clouded but gloriously blue. If only she had been closer to the waterfall and with her arm at a different angle. Jab! She had moved.

Nobody could begrudge this notional tourist the right to rewrite reality a little. But the uses to which a bad-ish actor could put this cast it all in a more dubious light. Not everyone will immediately see how they can benefit from these instant powers of retrospective manipulation of the visual record, but just having that ability in your pocket will make a very large number of people airbrush-curious.

Since the launch of ChatGPT, Google and others have little choice but to get involved in this early experimental, three-way clash between humanity, AI and trillion dollar companies. Google's guiding principle in this, its chief executive Sundar Pichai said last week, would be a "bold and responsible" stance. This is OK, but it feels like a place holder until the world gets a proper sense of how many bad-ish actors are out there.

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EU must learn the right capital markets lessons

Capital markets across the EU remain under-developed and many companies, especially small and medium-sized enterprises, struggle with access to capital ("How Europe failed to challenge the US", The Big Read, April 26).

The EU must learn the right lessons. If the objective is to improve funding conditions for companies across the whole union, the purpose of the capital markets union (CMU) project cannot be to replicate the City of London in the EU. Nor can the US provide a suitable blueprint for European capital markets of the future, given the different starting conditions when it comes to language, distribution models, investor preferences or legal frameworks.

Instead, the motto of the EU, "united in diversity", should become the guiding principle for designing a "polycentric" capital markets union that works for the benefit of citizens and companies in all member states.

Leveraging the EU single market with a best-in-class regulatory framework, the EU can become a highly dynamic provider of financial services, able to deliver tailor-made products that respond to the varying and evolving needs of a domestic, European and global client base.

Taking into account the relatively low starting point, there is potential to significantly increase the overall depth and liquidity of European capital markets by beginning from the ground up and focusing on incremental progress in all member states, bearing in mind existing differences in market characteristics and business models.

The expertise of national competent authorities will be key for establishing "enabling" financial sector ecosystems to channel investments in the green and digital transitions.

A further centralisation of supervisory powers would on the other hand be counterproductive, as it would deprive local financial market participants and public authorities of access to the crucial interlocutors needed to improve the framework conditions for developing capital markets throughout the union.

A successful CMU also requires capital markets that are open, within the EU as well as towards global markets. Creating closely interconnected international, regional and local financial hubs will help ensure that at each stage of their development, companies across the EU are able to access the funding sources that are best suited to their specific needs.

Since the global financial crisis, we have seen a loss of competitiveness of the EU financial sector to the benefit of financial centres outside the bloc. We are convinced that only a polycentric capital markets union will be able to reverse this trend and enable the EU to tackle the challenges that lie ahead.

Yuriko Backes
Luxembourg Minister of Finance
Magdalena Rzeczkowska
Polish Minister of Finance

Singapore's puzzling property phenomenon

Would you pay 60 per cent tax just to buy an apartment in a city which is already the most expensive in the world ("Singapore doubles foreigner property tax", Report, April 28)? Economists sometimes may find it difficult to explain demand and supply.

Thirty years ago a newly Nasdaq-listed furniture king could still afford to buy a good piece of land in Singapore island's posh residential area to build a grand mansion. Ten years ago a monthly apartment rental at Dalvey Estate, next to the quiet and lush green Botanic Gardens, could cost no more than S$6,000 — nowadays barely enough to rent a humble 80 sq metre flat in the Woodlands, a stone's throw from the neighbouring Malaysian state of Johor.

Maybe a Japanese animation can explain the phenomenon of Singapore, once called *Temasek* — "a thriving sea city" in South East Asia. The richest people in Asia, especially from Greater China, have been attracted there, but are now like a giant squeezing into a tiny little bottle. Eventually the property-hungry giant will find more comfortable accommodations across the Causeway in Malaysia.

In the meantime it is not too late for the city state to build more houses to allow the locals to enjoy some extra income as landlords.

Khaw Wei Kang
Macau

Labour risks killing goose that laid the golden egg

With the prospect of a Labour government in sight, the party's delight at taxing the "carried interest" in private equity deals as income should be tempered by the obvious fact that these businesses are highly mobile.

The arrogant assumption that London will remain one of the two financial capitals of the world may be a great case of hubris. Taxing foreigners living in London, regardless of the global competitive landscape, ignores the fact that other than the rules about taxation and domicile, it was the abolition of exchange controls by Margaret Thatcher in 1979 that was instrumental in enabling London to become the financial powerhouse that it now is.

It is one of the few economic assets the UK has and laying waste to it will ultimately impoverish the very same voters who might so welcome the slaughter of the goose that lays the golden egg. The UK is already a very highly taxed jurisdiction. Who knows what the breaking point will be.

William Salomon
London W11, UK

View of the City of London, 'one of the few economic assets the UK has'

Have you met my artificial intelligence PA?

ChatGPT has made the power of today's artificial intelligence understood by the general public.

Some technologists present us with a false dilemma, between a near-certain extinction event, powered by a superintelligent AI, or — as a best-case scenario — that AI will put most of us out of work and we'll be dependent on an AI giant, such as OpenAI, to provide a "universal basic income" (FT Magazine, April 15).

Disrupting this false dichotomy for the future is the open source community's recent work optimising ChatGPT equivalents to run natively — completely offline — on MacBooks, iPhones, and even Raspberry Pi computers. Stanford's Alpaca project likewise has demonstrated that the performance of a leading large language models (like ChatGPT's) can be cheaply and easily extracted and applied to a less capable model.

The future to prepare for is one in which every device natively hosts and runs its own private, custom and wholly owned personal AI assistant, massively increasing the personal productivity of every human on the planet — just as the typewriter, the PC and the internet have done in previous generations.

We have a shot at preserving autonomy, self-governance and human creativity in a world with powerful AI.

The new generation of AI can be a tool for us to reclaim autonomy in our acquisition of information, communication, and the means of production.

Rebecca Gorman
Founder and Chief Executive, Aligned AI
Oxford, UK

The dishwasher test

Publishers should have little to fear from artificial intelligence, based on large language models ("AI/publishers: drones over their data gardens", Lex, May 11).

Science and many other subject textbooks depend on diagrams, photos and mathematics to communicate and explain complex concepts. To date, no AI model is capable of explaining using such multi-modal forms of representation.

When it can, and when such "intelligence" is capable of emptying my dishwasher, I will know that humanity has become a secondary species of being.

Jonathan Osborne
Professor of Science Education
Stanford University, CA, US

Beware the triumphalism around Alzheimer's drugs

On May 9, the FT devoted a half page to describe the results of an anti-amyloid trial that showed a slowing in decline of the ability to perform daily tasks ("Alzheimer's drugs offer hope after decades of false dawns", Report, May 9).

It is both amazing, and depressing, that this small benefit is regarded as a triumph. The goal of therapy should be a reversal of dementia, not merely a slight slowing of its progression.

Alzheimer's dementia is multicausal and it should be obvious to any one who thinks about it — the chief executives of Big Pharma obviously do not — that curing dementia cannot be achieved by using a single drug.

Published proposals abound for using several drugs in combination but since those drugs are not owned by large pharmaceutical companies they are profitless and so are not subjected to clinical trials.

Regarding the current triumphalism, I suggest "caveat lector".

Jeffrey Fessel
Emeritus Professor of Medicine
San Francisco, CA, US

Inflation string theory

John Plender writes in his "The Long View" (FT Weekend, April 29) that Milton Friedman famously declared that inflation is always and everywhere a monetary phenomenon.

To complement the quotation, Friedman, perhaps channelling John Maynard Keynes, wrote in *The Role of Monetary Policy* (1968) that: "Monetary policy was a string. You could pull on it to stop inflation but you could not push on it to halt recession."

Robert Oser
Castlecrag, NSW, Australia

On China, don't elide trade with national security

Sim Gurewitz's letter ("No wonder China thinks its 'peaceful rise' is thwarted", May 2) raises interesting questions as to who is entitled to feel insecure as between China, its neighbours and the US.

It also highlights the importance of separating economic issues from national security concerns.

On the economic front, until Treasury secretary Janet Yellen's statement, the US had seemed to have been on a path of seeking to thwart China's economic development, which was always a ridiculous aim. As Rana Foroohar says ("China, America and why not all growth is equal", Opinion, May 1), the very notion that any nation could contain China economically is a fiction. China had good reason to feel insecure in the face of that policy, even if it now appears to have been abandoned. However, the position as regards national security is different, and should not be elided with trade concerns. Xi Jinping has taken a consistently bellicose stance as regards Taiwan, and China's position in the South China Sea. In the face of that hostility, it is not surprising that China's neighbours have taken steps to strengthen their defensive positions.

For China to portray these actions as grounds for insecurity, when it caused them, is to turn facts on their head, and to use the same discredited arguments that Vladimir Putin has used regarding Nato and Ukraine.

Raj Parkash
London W4, UK

Harmonising accounting practice can create discord

John Ralfe (Letters, April 26) wants us to stick with accounting standard FRS17. He says we won't solve any problems by looking for a new pensions "weighing machine".

But maybe it was a mistake moving to FRS17 in the first place (for no very good reason). In 1995 the Accounting Standards Board decided not to change, partly on the grounds that "current market prices may not be representative of the long-term expected outcome". Then in 1999 the ASB changed its mind and concluded that it should move into line with international practice and use "market values" rather than actuarial values.

The trouble is that "harmonising" accounting practice tends to lead to a global monopoly and foregoes the great advantages of competition between regulators.

Professor DR Myddelton
Cranfield School of Management
Bedfordshire, UK

Opinion

How to fix Britain's water industry

BRITAIN
Martin Wolf

The sale of the UK water industry in 1989 is the most controversial of all Margaret Thatcher's privatisations. Critics argue that it has been little more than a rip off: the privatised companies have failed to eliminate leaks, been permitted to dump vast quantities of untreated sewage into our waterways and used clever financial engineering to boost rewards to shareholders. Indeed, a study published in 2018 argued the cash flow from customers could have funded all investment undertaken, while borrowings merely went to rewarding shareholders.

Was it all a terrible mistake? Whether or not it was, what should be done now?

It is easy to argue that the answer to the first question has to be "yes". Water is not just a local monopoly, it is also a vital necessity. This means the providers have enormous market power and are subject to no competition. That in turn makes tough regulation essential. But regulators are always likely to be outwitted, if not captured, by the profit-driven businesses they are trying to curb. Furthermore, given the nature of the business, the relevant risks are mainly borne by the customers rather than shareholders. If the companies fail to deliver, the former cannot go elsewhere. They can only complain and, if the answer is more investment, pay up. Beyond all this, water is an industry with profound externalities, notably those for the environment and health.

For all these reasons, it has long been assumed that profit-seeking enterprises are bound to be problematic in this sector: conflicts of interest are too great to be managed. Yet there is a counterargument that, in the UK case, seemed decisive. It is that Her Majesty's Treasury in particular, and the government more broadly, is a hopeless trustee of such vital assets. It is obsessed with the liability side of its balance sheet and consistently ignores the assets. So, the water industry was chronically starved of investment. In this highly second-best world, privatisation would, it was argued, lead to higher investment and better performance in the industry.

Michael Roberts, former chief executive of Water UK, argued a few years back that "since privatisation, investment of nearly £160bn has seen strong,

> This is a sector with profound externalities, notably those for the environment and health

steady improvement, giving customers world-class drinking water. Leakage is down a third since the mid-1990s, two-thirds of beaches are classed as excellent, compared with less than a third 25 years ago." This is not entirely wrong.

Yet over time improvements in performance tailed off and the scandals we see emerged. There was a failure to monitor what water utilities were doing, especially their dumping of sewage, and a corresponding failure to be demanding enough on needed investments. Moreover, Ofwat's powers were inadequate: it could not impose changes on licences, block dividends or control salaries in any way. Now at least it can.

So, what is to be done? It would be possible to renationalise the businesses. I remain, however, sceptical over the government's ability to run the sector any better (though Scottish Water is a public company accountable to the Scottish parliament). A second option is to keep independent companies, but change the structure of ownership from shareholder-owned companies. One such alternative is Welsh Water, which is funded solely by debt and charges. This model was controversial when created in 2001. Yet it has been a successful business with a good record on changes in charges to customers. But its superiority on other dimensions is less clear.

If the businesses remain independent, the key action must come from the remit and actions of regulators. It is clear that the current situation is unsustainable. There will have to be a great deal more investment. That in turn must ultimately be funded by charges (with tough controls on diversions to salaries and dividends). Crucial here will be the closest possible co-operation between environmental and financial regulators. Higher standards must be set, monitored and imposed, with fierce penalties on those who fail to meet them. Licences must be lost if necessary.

Last but not least, there is a discussion to be had over whether the framework needs to be transformed. Oxford's Dieter Helm is particularly radical. He argues for "a water system that places fewer demands on drinking water supplies, where sewerage systems are used to handle sewage only, where sewage is not discharged into rivers, and where farming and flood defences take account of the wider natural capital". The answer, he insists, is integrated regulation of river catchments.

Sometimes the best thing to do is to step back and ask how radically something needs to change. That is now the case for the water industry. Let us do so.

martin.wolf@ft.com

US cities must beware the 'donut effect'

Matt Kenyon

BUSINESS
Rana Foroohar

The story of troubled American cities left with empty office buildings post-pandemic is well known. What's less well understood is that this is really a tale of two cities — downtown, and everywhere else. While many commercial business districts are struggling, their urban outer rings are often thriving. Call it "the donut effect".

Academics Arjun Ramani and Nicholas Bloom — who named this phenomenon in a recent NBER working paper of the same title — have shown that the majority of people leaving city centres are not moving far, mostly to the suburbs and exurbs of the urban areas in which they already reside. New York is a great case in point: a heat map in the NBER paper shows movement away from Manhattan towards the outer boroughs and Long Island.

Even if the "donut effect" is strongest in large cities like New York and San Francisco, you can see it in others like Chicago, which has some disturbing parallels to the original "donut" city — Detroit. For decades, the beautiful Detroit downtown buildings of the late 19th and early 20th century stood nearly empty, thanks to a combination of racism, the loss of US auto-industry predominance, rising crime and violence, and white flight to the outer rings of the city.

Detroit's downtown has recovered somewhat in recent years, due in part to the efforts of entrepreneurs like Quicken Loans founder Dan Gilbert to renovate old commercial buildings into loft spaces and bring in new businesses, as well as the shops, restaurants and hotels that attract younger workers. But the lack of a well-functioning transit system makes it tough to rebuild downtown at scale.

This is one of many lessons that Detroit holds for modern "donut" cities: commute time matters, especially in the post-Covid age when working in an office every day is still a choice rather than a requirement for many.

Tracy Hadden Loh, a fellow at the Brookings Institution who specialises in commercial real estate, infrastructure, racial justice and governance, notes that while the research into which cities are failing or thriving post-pandemic is still nascent, one variable that seems to matter is ease of transit. This may be one reason why downtown London and Paris seem vibrant compared to many US cities.

It's not surprising to me that a place like New York, which has a reasonably well functioning (albeit declining) public transport system, has more economic activity downtown (as measured by cell phone usage) than Chicago or Los Angeles, where such infrastructure is notoriously poor. These latter cities are also held back by highly segregated neighbourhoods and city centres which are suffering not only from the commercial real estate crisis, but a decline in the entertainment or amenities that would draw people downtown for something aside from work.

Such problems are likely to get worse before they get better. The Federal Reserve's financial stability report last week called out the exposure of financial institutions to commercial real estate as one of the major threats to the US economy, as the bursting of the bubble has only just begun. The Fed warned that, since mortgages backed by office and downtown retail property tend to

> While many commercial business districts are struggling, urban outer rings are often thriving

be about a third of CRE holdings, "with CRE valuations remaining elevated, the magnitude of a correction in property values could be sizeable and therefore could lead to credit losses by holders of CRE debt". As those dominoes fall, so may others in the financial system.

How to avoid the "donut effect" *en masse*? The conversion of commercial real estate to residential or mixed use space has helped rejuvenate parts of downtown Detroit. But as historian Tom Sugrue, author of *The Origins of the Urban Crisis: Race and Inequality in Postwar Detroit* notes, the city's 1920s office buildings were far easier to retrofit than the skyscrapers of today. That's one reason why rents and housing prices in the outer rings of cities like New York have been rising so sharply since the pandemic. "There are lots of intermediate neighbourhoods that didn't hollow out, and often they are the immigrant neighbourhoods or more working class neighbourhoods that never really shut down," Sugrue says.

Unfortunately, that's now leading to an even broader cost of living crisis for working people and higher rents for small businesses in areas like Queens or Brooklyn. Simply pushing the problems of Manhattan — or San Francisco's Union Square — to the periphery isn't a solution, particularly if it results in higher taxes being imposed on those residents least able to afford them. (Most major cities, including New York and San Francisco, already rely more on residential property tax receipts than commercial real estate taxes to fund public services.)

So what's to be done? I'd take a page out of urban activist Jane Jacobs's book, and consider mixed usage. Office work may never be what it was, but movie theatres and Broadway shows are back, hotels are booming and service sector wages are substantially above the pre-Covid level, according to data from Apollo. People still want to live in and visit big cities — they just want to do it in new ways.

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There is a way to end America's debt ceiling stand-off

Glenn Hubbard

To "hit the ceiling" is to be frustrated enough to be mad. Just last week, Treasury Secretary Janet Yellen informed Congress and the public that the US Treasury, the world's biggest borrower, may be unable to meet all of the government's spending obligations by June 1, raising the spectre of a first-ever default on Treasury debt. The culprit is the "debt ceiling' — that is, the government has to periodically raise the amount of allowable debt outstanding, a feature of US fiscal affairs since 1917.

The drama has two parts — the surface question of whether the debt ceiling will be raised to accommodate borrowing that reflects spending decisions (whether to pay our bills) and the underlying question of how to alter the nation's unsustainable fiscal trajectory (whether to agree on a framework for sound policy). Republicans have passed a bill allowing for the debt ceiling to be raised, but with tough conditions not acceptable to the Biden administration. The president and Yellen have called for a "clean" extension with no negotiation. A meeting between Biden and House Speaker Kevin McCarthy produced little momentum.

This looming game of chicken yields a range of reactions from "What's the debt ceiling?" to "They've always worked it out, so they will again" to "This could get ugly". Well, it could well get ugly, but it doesn't have to. While the Biden administration is correct that a blow-up leading to a default would be a disaster, a "no negotiation" stance makes achieving any political bargain very difficult. And while House Republicans passed a debt ceiling bill linked to some reasonable spending changes, their inclusion of a range of policies beyond this spending debate makes negotiation difficult.

Bringing long-term debt issues to a head by threatening default is calamitous. Even the prospect threatens the cost of credit not only to the federal government, but to US states, businesses, and households. It is both a bad experiment and a weak negotiating position. That said, we can't just keep raising the debt ceiling without consideration of the underlying challenges. The nation is on an unsustainable fiscal path, magnifying future pain.

There is a better way. Understanding consequences of excessive federal deficits and debt is essential in shaping consensus for action on spending and taxes. An agreed-upon fiscal framework could

> A fiscal framework could give targets for spending, deficits and debt, and foster accountability

give Congress and the president targets for spending, deficits and debt. This in turn could foster accountability, by giving opportunities to criticise inaction.

Good advice on how to achieve this comes from unlikely places. For conservatives in Congress, Sweden offers a path forward. In response to its own fiscal crisis in the 1990s, Sweden initiated a medium-term budget process beyond the annual budget — with targets for debt and a ceiling on expenditure. The Swedish Fiscal Policy Council provides an independent evaluation of fiscal sustainability, visible to the public and to which the government must respond.

A decade ago, Tim Kane and I proposed a spending limit for the US linked to a long-term average of federal revenue (adjusted for inflation), triggering Congressional action to reduce spending or to raise taxes if large deficits persist. Congress could only override it with a supermajority. The precise mechanism is less important than Sweden's intuition that a longer-term fiscal framework and direct accountability are needed. Such a mechanism separates worries about *debt* from the issue of the *debt ceiling*. Adhering to the budget framework allows future clean increases in the debt ceiling as long as the framework is in place. This would be an advance over our present stand-off and adding near-term spending restraint offers a win for McCarthy.

As for progressives? Good advice here comes from . . . Joe Biden. In the 1970s, then Senator Biden introduced a bill that would have limited budget authority for all federal programmes to between four and six years. He also supported the social security benefit reductions under the 1983 reforms. The point is not that any framework is perfect, but that a forward-looking target for spending and debt with accountability is important. Moving forward with debt ceiling increases within a budget framework offers a win for Biden.

Consider the alternatives. Flirting with default will prompt an immediate, costly drop in stock prices and confidence in an already weakening economy. (Memo to Congress and the White House: study market reactions to the initial failure to approve the Troubled Asset Relief Program for banks at the onset of the 2008 financial crisis.) And simply acquiescing to a debt ceiling increase with no framework for fiscal sustainability is a prescription for unnecessary future pain. As the late economist Herb Stein once quipped, "If something cannot go on forever, it will stop."

The writer is a professor at Columbia University and was chair of the US Council of Economic Advisers under President George W Bush

A ban on short selling is a bad idea as the 2008 crisis showed

Jim Overdahl

Following weeks of declining prices for US regional bank stocks, short selling of equity shares is once again coming under scrutiny with calls for more regulatory oversight of the practice. In a letter to clients this past week, a major Wall Street law firm argued that the Securities and Exchange Commission should impose a 15-trading day prohibition on short sales of the stock of financial institutions. Jamie Dimon, chief executive of JPMorgan Chase, has also called on regulators to look into the behaviour of short sellers.

I was the SEC's chief economist during the 2008 financial crisis, the last time regulators banned the practice of short selling, an investment strategy in which an investor borrows shares from long-term holders with the expectation share prices will decline. Based on my experience, I believe any new regulatory intervention banning short selling would be a huge mistake.

The SEC's longstanding view has been that this practice plays an important role in promoting market quality and helping investors by contributing to price discovery, liquidity, risk management and by lowering the overall cost of trading and raising capital. The 2008 ban was a departure from this view.

Emergency authority was used to ban short selling in 799 financial stocks (eventually over 900 stocks). This was part of then Treasury secretary Henry Paulson's "shock and awe" approach to the crisis, and came amid concerns that short selling was causing sudden and

> Restrictions failed to slow the decline of financial stocks and many market participants were harmed

excessive fluctuations in share prices of financial institutions. Paulson's aim was to alter investor perceptions, bolster confidence, stabilise markets and prevent excessive price declines in financial shares. The ban was lifted three weeks after it was imposed.

Its effects were extensively studied by SEC economists and by a number of academic researchers. The results of these studies paint a uniform picture of a policy that clearly failed any reasonable cost/benefit test. The ban failed to slow the decline in the price of financial stocks and many market participants were harmed without any offsetting benefit. The studies showed the ban worked in at least one way: shorting activity declined significantly for affected stocks.

Importantly, these studies revealed that the premise for the ban — that short sales were more aggressive than the sales made by those holding shares and wishing to dispose of them — was mistaken. They also showed that short selling of financial shares was more intense in rising markets, not falling ones.

Furthermore, the studies found the ban was counterproductive, as it led to a severe degradation in market quality by increasing intraday stock price volatility, reducing market liquidity, increasing bid-ask spreads and price impacts, reducing pricing efficiency and increasing trading costs.

It led to a substitution of other instruments to gain short exposure, such as equity swaps or credit default swaps. The studies documented impaired arbitrage and hedging processes caused by the ban leading some traders to unwind their positions, resulting in additional selling pressure on financial shares.

Finally, many exchange traded funds that depend on short exposure halted the creation of new shares. The result was many ETFs trading at a premium to their net asset value since there were no new shares created to meet demand.

The compelling body of evidence documenting the harmful effects of the 2008 ban led leaders at that time to conclude it had been counterproductive. As the then chair of the SEC, Christopher Cox, was preparing to leave the agency, he said agreeing to it had been his biggest mistake. Today's SEC should review the lessons of 2008 and make sure it does not get pressured into repeating the error.

The writer is a partner with Delta Strategy Group. He was previously chief economist at the Securities and Exchange Commission

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Risk Management

Financial Institutions

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Bank collapses prompt liquidity rethink

Demise of lenders, from SVB to Credit Suisse, is making policymakers review their 'final' rules, writes *Laura Noonan*

Lessons learnt? Bank runs have come back to haunt regulators and customers — Peter Macdiarmid/David L Ryan/The Boston Globe via Getty Images

It ends with us. Years before those words were used for the title of a best-selling romance novel, they could easily have been the rallying cry of global regulators, as they announced the "finalisation" of the Basel banking rules in 2017, to overhaul lax banking standards.

But, now, that promise of a regulatory endgame to toughen capital, liquidity and resolution rules is coming back to haunt policymakers, who are considering further regulatory changes in the wake of the collapse of Silicon Valley Bank, Signature Bank, Credit Suisse, and, most recently, First Republic.

"If you take the view that these are standards that you can set once and for all, then they're doomed to fail," argues David Aikman, professor of finance and director of the Qatar Centre for Global Banking and Finance at King's College London.

The Basel Committee on Banking Supervision, which sets global standards, has said it is reviewing recent events, to see if there are lessons to be learned, and rules to be enhanced.

"It is important to keep an open mind at this stage about whether any potential revisions to the global regulatory and supervisory framework are needed," Pablo Hernández de Cos, Spain's central bank governor and chair of the Basel Committee, told the Eurofi conference on April 28.

Although the crises that engulfed the three US banks and Credit Suisse were all unique to an extent, there are commonalities between them. All four suffered from a bank run when depositors rushed to withdraw their money en masse, destabilising the lenders, who then had to rapidly sell assets so they could meet their customers' demands.

The UK and the US are both looking at changes to their deposit guarantee schemes, which they hope would dissuade customers from bolting when uncertainty and fear set in. Global regulators are also looking at modifications to the liquidity coverage ratio, which requires banks to be prepared for runs of a certain speed. The collapse of SVB in particular — which lost $42bn, or a quarter of its deposit book, in a single day — proved that banks should be prepared for much faster runs, and revised rules are expected to reflect that.

"Liquidity stress testing/rules present an area where all countries need to do more work," says Sheila Bair, former chair of the US Federal Deposit Insurance Corporation.

As well as changing assumptions around the speed of bank runs, Bair says regulators might want to revisit their treatment of government-backed debt, which is treated as highly-liquid regardless of its maturity, and of uninsured deposits, which are "probably treated as more stable than they really are".

The risks from rising interest rates are another common thread running through the US bank collapses. When depositors rushed to withdraw funds, lenders had to sell the bonds they had bought with depositors' money.

Those bonds were top quality government debt, but their market price had fallen because rising interest rates make old bonds paying lower rates less valuable. Under US accounting rules, banks were allowed to ignore that fall in value, even if the bonds were part of their "available for sale" portfolio, rather than the ones they planned to hold until they matured.

"When interest rates rise, this treatment masks market losses on their AFS (available for sale) investments, making their capital position look stronger than it really is," explains Bair, who argued for the US to follow the global approach and force banks to recognise losses on their AFS bonds in real time.

But there are also broader issues with the way interest rate risk is managed. Regulators try to capture the risks of interest rate changes through a capital add-on called "interest rate risk in the banking book" (IRBB). Capital charges for factors such as lending risk are captured in Pillar 1 — which covers the main capital requirements and has hard and fast global standards — whereas interest rate risk is in Pillar 2, which addresses capital requirements where national supervisors have vast discretion.

"There is a framework for Pillar 2 that some jurisdictions implement [for IRBB], including the UK," says Aikman. But he adds: "There are questions about the stringency and adequacy of that framework that regulators would want to take another look at [including] whether it is transferred to Pillar 1 and implemented across the board."

In addition, regulators must decide to whom the Basel rules apply. "I don't think there are significant changes needed to the global Basel framework; the tools are there, we just need jurisdictions to implement them faithfully," suggests Jeremy Kress, assistant professor of business law at the University of Michigan Ross School of Business.

The Basel Committee agreed to apply the rules to their "internationally active" banks — but that term has never been defined. So, in Europe, regulators decided to apply the rules to almost every lender, while US regulators took a phased approach: applying the most stringent of the Basel rules to banks with a balance sheet of more than $700bn; a lighter package to those with more than $250bn; and even fewer to those with smaller businesses.

As a bank with less than $250bn in assets, SVB therefore did not have to comply with Basel liquidity rules and some other elements of the Basel package, even though it had significant operations overseas. The bank also benefited from Trump era deregulation that gave lenders a three year grace period on stress tests.

The US authorities were reviewing the appropriateness of those lighter touch rules before SVB triggered a spate of midsized bank failures. And, if US regulators do not get there on their own, the Basel Committee could try to force their hand as it considers whether there is a case stipulating that the rules be applied across a larger group of banks.

Whatever change does come, it is unlikely to be swift, though. The 2017 Basel package is delayed in most jurisdictions until 2025. If any further enhancement of the global rule book follows a similar timeline, we might not see the results until 2030, by which time the memory of the recent bank failures may have faded — and the "it ends with us" promise even more so.

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Hackers get more 'hands on' with their attacks on banks

Cyber security

Financial industry is on the front line of escalating digital war, writes *Hannah Murphy*

Banking has long been recognised as one of the sectors with the most mature and collaborative approaches to cyber security. But it also remains constantly under threat, as hackers' rapidly adopt emerging technologies to find new ways to breach defences.

According to Bill Borden, corporate vice-president of worldwide financial services for Microsoft, this presents financial companies with a unique challenge: "Creating high-friction experiences for cybercriminals, fraudsters and money launderers while delivering low-friction customer experiences."

Banks, in particular, have found themselves more exposed to hackers in recent years — despite being part of most countries' critical infrastructure — because of their digital transformation and moves to cloud computing, which bring a reliance on a web of third, fourth or even fifth-party suppliers.

Not only must they protect their own assets and data from both criminal groups and nation-state hackers, they must also protect their clients from falling foul of scams or identity theft, for example. Given the amount of sensitive personal information they hold on customers, as well as their funds, they remain a prime target — ever bombarded by attacks.

Norges Bank Investment Management, the sovereign wealth fund, last year said that it suffers about 100,000 cyber attacks a year, of which it classifies more than 1,000 as serious — with chief executive Nicolai Tangen labelling cyber security as its biggest concern, above tumultuous markets.

Michael Sentonas, president at cyber security group CrowdStrike, says cyber adversaries are "continually increasing the sophistication of their tactics and exploits, while decreasing the breakout time for intrusion activity, or the time it takes for them to move laterally within a network".

CrowdStrike found a 50 per cent increase in "hands-on" attacks — in which the perpetrator uses a keyboard to break into the host network — between 2021 and 2022, with financial services being the second most targeted sector, after technology. Financial services is also among the top 10 sectors targeted by access brokers, who trade in or abuse stolen credentials, Sentonas says.

Similarly, an analysis of attacks by the Financial Services Information Sharing and Analysis Center — an industry wide-alert system — found the finance and insurance industry is the third most targeted sector by ransomware criminals.

And the stakes are high, particularly when it comes to reputational risk. "A cyber attack on a bank would have a significant impact and effect [on] that share price and that trust between the bank and the clients, which could have a much more significant impact than other sectors," says Stuart McKenzie, head of consulting for Europe, the Middle East and Africa at Google's cyber security business, Mandiant.

In response, experts recommend that banks focus on enabling multi-factor authentication, robust access and identity management procedures, and enhanced data governance. In addition, banks should draw up incident response plans and simulate attacks to practise their response.

Steve Soukup, chief executive of cyber security company DefenseStorm says banks are increasingly taking a proactive approach and treating cyber security "more like a risk management discipline", by having policies and controls in place that are regularly tested and measured.

However, he finds that many smaller banks and credit unions still spend more time managing the risk of their small business lending portfolio than they do on cyber security — even if, from a financial standpoint, their exposure is "just as profound".

Longer term, technologies are being developed that will further test the cyber security strategies of financial institutions. Firstly, banks will have to weigh how to defend against, and make use of, artificial intelligence, given its potential to automate attacks at scale, and its ability to adapt to targets.

"I think we'll see attackers use generative AI to craft much better phishing," says McKenzie, referring to AI that can generate text and images in response to human inputs.

Fabio Colombo, global lead for financial services security at consultancy Accenture, agrees: "On the one side, it could mean the attackers have access to a very fast way of engineering new malware, new code, new threats." This might mean companies will have to move faster to patch, or upgrade, their systems as hackers are able to exploit vulnerabilities more quickly. But, Colombo adds, AI will also increasingly be used by banks to detect attacks and automate their cyber defences.

Sophistication of tactics 'increasing'

Some are upbeat about other developments that affect the industry. Microsoft's Borden points to a new privacy-enhancing technology known as "confidential computing" that allows cloud providers to process encrypted data without being able to access or alter it.

"Confidential computing provides the missing piece for full data protection at rest, in transit, and now in use," he says.

At the same time, Colombo notes that financial services is one of the sectors "most impacted" by quantum computing — a technology so theoretically powerful that experts fear it will be able to crack the encryption that is typically used to secure user data.

"Many global banks and global insurance companies are looking forward for let's say, three to five years, to understand what could be the threat if some of the algorithms or encryption will be broken," Colombo says, urging banks to assess where they might be vulnerable and how they might be able to address any potential compromises.

Borden adds that companies — and particularly their boards — will also need new training in how to handle a crisis. "They need to be prepared for the unknown, the black swan," he warns.

Generative AI redefines risk management tactics

Technology

Companies consider benefits of automating data analysis processes, writes *Nick Huber*

In the quest to minimise threats and maximise rewards, risk officers have become more reliant on artificial intelligence. But, while AI is increasingly being used to spot patterns and behaviours that may indicate fraud or money laundering — and, more controversially, to recognise faces to verify customer identity — its wider use to manage risk in institutions has been limited.

Now, though, the release of AI chatbots such as ChatGPT — which use "natural language processing" to understand prompts from users and generate text or computer code — looks set to transform risk management functions in financial services firms.

Some experts believe that, over the next decade, AI will be used for most areas of risk management in finance – including enabling new types of risks to be assessed, working out how to mitigate them, and automating and speeding up the work of risk officers.

"The genie is out of the bottle," says Andrew Schwartz, an analyst at Celent, a research and advisory group specialising in financial services technology. More than half of large financial institutions are, at present, using AI to manage risk, he estimates.

Conversational, or "generative" AI technologies, such as OpenAI's ChatGPT or Google's Bard, can already analyse a vast amount of data in company documents, regulatory filings, stock market prices, news reports, and social media.

That may help, for example, to improve current methods for assessing credit risk, or to create more intricate and realistic "stress testing" exercises — which simulate how a financial company could handle adverse market or economic situations — says Schwartz. "You just have more information and, with more information, there could be a deeper and theoretically better understanding of risk."

Sudhir Pai, chief technology and innovation officer for financial services at consultancy Capgemini, says that some financial institutions are in the early stages of using generative AI as a virtual assistant for risk officers.

Such assistants collate financial market and investment information and can offer advice on strategies to mitigate risk. "[An] AI assistant for a risk manager would allow them to gain new insights on risk in a fraction of the time," he explains.

Deeper insights: generative AI could improve organisations' ability to assess risks

Financial institutions are typically reluctant to talk about any early use of generative AI for risk management, but Schwartz suggests they may be tackling the critical issue of vetting the quality of data to be fed into an AI system, and removing any false data.

Initially, larger firms may focus on testing generative AI in those areas of risk management where conventional AI is already widely used — such as crime detection — says Maria Teresa

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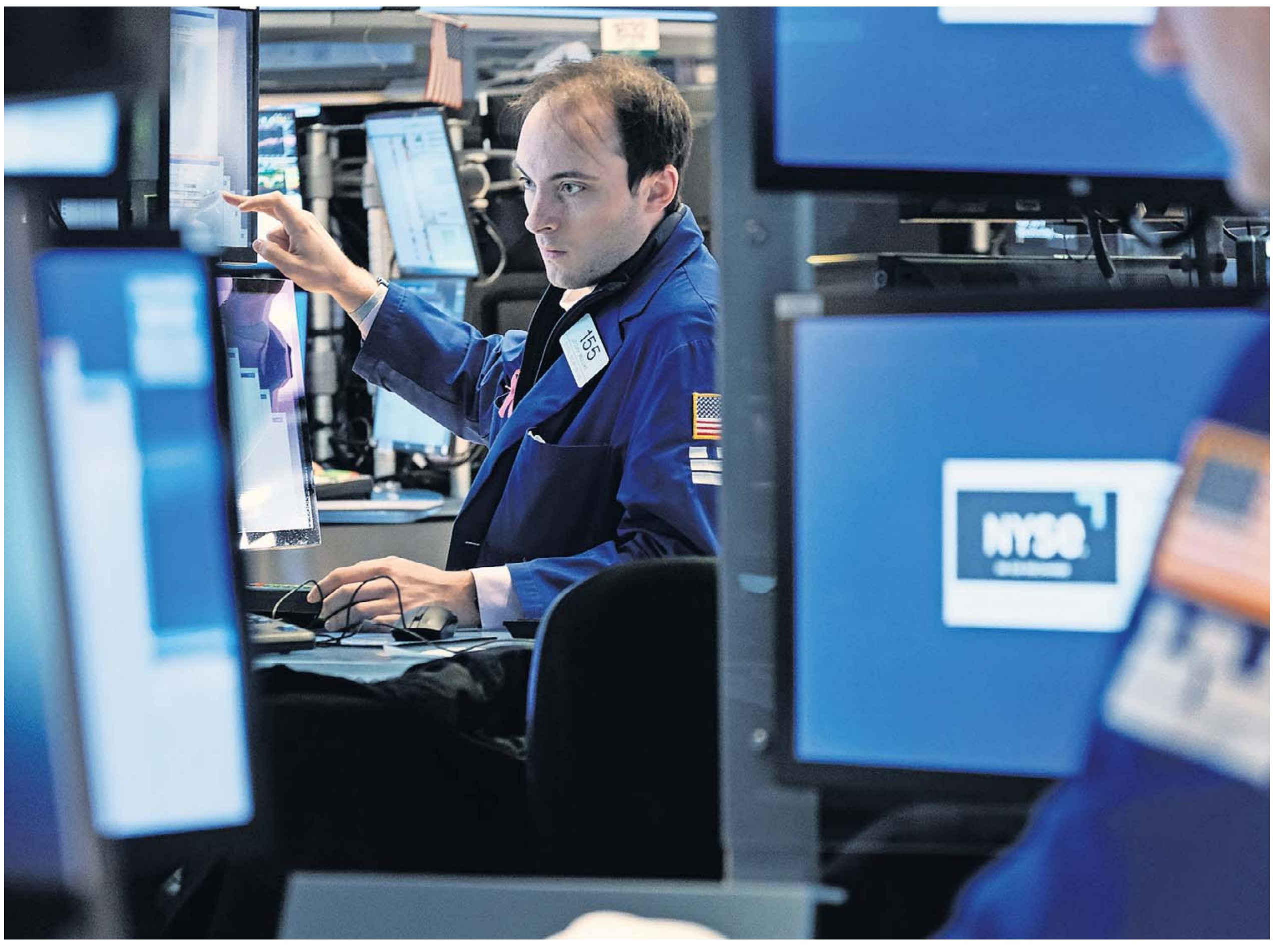
Interest rate rises bring greater risks for banks

Lenders need to adjust to a world where funding is no longer cheap, writes *Brooke Masters*



Investors are concerned that banks' models are out of date
Spencer Platt/Getty Images

After decades of near-zero per cent interest rates, many bankers had been looking forward to the day when higher policy rates would give them the chance to charge more — and profit more — from day to day lending.

But, now that the US Federal Reserve and the Bank of England have pushed rates to levels not seen since the 2008 financial crisis, bank executives are discovering that with rising rates has come a heightened need to manage interest rate risk more carefully.

The dangers first showed up publicly in banks' unrealised losses in their securities portfolios. Government securities are ordinarily considered super-safe assets, but those that were purchased when interest rates were very low have been losing value as rates began to rise. In the US, these losses ballooned from just $8bn at the end of 2021 to more than $620bn at the end of 2022 for lenders insured by the Federal Deposit Insurance Corporation.

Rising interest rates have also pushed down the value of other long-dated assets, such as mortgage loans. One study led by Erica Jiang, at the University of Southern California, estimates that the total losses, if banks had to mark all of their assets to market, would top $2.2tn, and that more than 2,000 banks would have losses larger than their equity.

That loss of value, experts say, calls into question the banks' ability to manage changes in interest rates. The problem also became an existential risk for several banks, including Silicon Valley Bank, Signature, and First Republic. All three were taken over by the FDIC after rapid deposit outflows forced them to sell assets to meet customers' demand for cash.

Other regional banks have also had their share prices hit hard by investor fears that they will be unable to adjust their business models to a higher-interest rate world, where funding is no longer cheap, customer deposits are moving around, and the prices of safe assets are not as stable.

Regulatory consultant Mayra Rodríguez Vallardes argues that bank risk managers need to "go back to basics" and do an assessment known as a "gap analysis", in which liabilities and assets are grouped by their duration to see at what point in time the bank will start having more liabilities than it can easily meet. From there, the next step is to forecast what will happen if rates continue to move, she says.

Traditionally, such tests looked at 25 or 50 basis point interest rate moves, but "right now, they should be doing [asking] what if rates go up by 100 basis points or 200 basis points in a short period of time," she says.

Bank risk managers would also do well to study other periods with high or rapidly rising rates, such as the 1980s, to make sure they are covering the right bases, says Rodríguez Vallardes. As she puts it: "Before anybody goes into a risk management position, they should be required to take a history class."

Usually, when interest rates rise, banks initially profit because they can start charging more for loans more quickly than they have to start paying higher interest on deposits. This results in an increase in what is known as "net interest income". Savings customers eventually catch on and seek products that pay more interest but there has traditionally been a significant lag.

> 'Before anybody goes into a risk management position, they should be required to take a history class'

This time, the shift has come far more quickly because digital banking makes it much easier to move money from bank to bank, or into money market funds, which are not insured but now offer high annual rates. Worries about regional bank stability after the fall of SVB also prompted many depositors to take a hard look at their local bank and move some or all of their money out.

One large investor in bank shares now worries that bank risk models are out of date, saying: "Outflow rates need to change. We are learning that retail deposits are as flighty as anything else."

Bill Isaac, who chaired the FDIC during the 1980s savings and loan crisis, says that the lessons from that period are clear and still relevant today. "Don't lock up [deposits] for long periods because easy come, easy go — rates are not going down and they could go up," he says. "Don't buy too many government bonds at fixed rates and, if you do, hedge them."

That, however, is easier said than done — hedging can be expensive and bank profits are already being squeezed by the shrinking of net interest margins.

"It's wrong to say banks should hedge their spread risk — you'd be paying away all of your profit in hedges," argues Barry Norris, a short seller investor who bet hard against Silicon Valley and Signature banks. "This is a real test for bank business models . . . It's only when you get tested that you see who has the better managers."

But Jiang, at the USC, sees a different solution. "Long term, these banks need to have a larger equity buffer to cover all of their interest rate risk," she suggests.

Industry awaits fresh 'green guide'

Enforcement

FTC consultation on how to market sustainability comes amid a global push against greenwashing, writes *Patrick Temple-West*

Corporate sustainability claims are expected to come under fresh scrutiny after a US regulator concluded a public consultation into its 11-year old anti-greenwashing guidelines.

Public feedback on the US Federal Trade Commission's current version of the "green guides" — used to police environmental marketing claims — has shown how several groups are at odds over how both to define as well as to enforce greenwashing infractions.

During the consultation period, several consumer advocacy groups proposed tougher enforcement for financial products.

Americans for Financial Reform, a left-leaning coalition of consumer, labour and community groups, has recommended that the FTC include terms such as "Paris-aligned" as it relates financial institutions' use of "net zero" and other commitments to fossil fuel transition plans.

"The explosive rise of the ESG investment space has raised new questions about what constitutes fair and faithful marketing and disclosure around financial products and services," AFR said in an April 24 letter to the FTC.

However, other companies are fearful of increased regulation and enforcement which could put them at risk of incurring "potential substantial civil penalties," says Jon Direnfeld, a partner at law firm Orrick.

Switzerland-based food group Nestlé says it supports the FTC's green guides, but does not want these policies added to the agency's enforcement rules for environmental claims.

It is "critical" for the FTC to keep its green guides "flexible and nimble," Nestlé said in an April 24 letter to the agency, adding these policies should be updated more frequently as technology and business practices evolve.

Already, the FTC has shown increased aggressiveness in hunting for greenwashing. Last year, it settled with US retailers Walmart and Kohl's for marketing dozens of rayon textile products as bamboo. The companies paid $3mn and $2.5mn in penalties respectively.

"Walk down the aisle at any major store [and] you are likely to see packages trumpeting their low carbon footprint, their energy efficiency, or their 'sustainability'," FTC chair Lina Khan said in December. The agency's green guides are supposed to "help companies avoid running afoul of the law's ban on deceptive advertising".

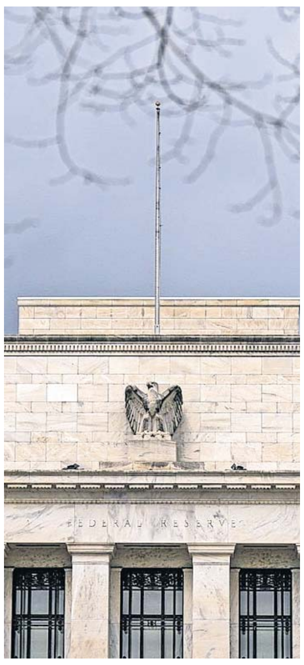
The FTC's decision to consult on its "green guides" comes amid a growing push by global regulators to combat greenwashing. Last March, the European Commission proposed rules to fight greenwashing in the rapidly growing bond market. And, last year, the FTC's counterpart in the UK, the Advertising Standards Authority, banned HSBC's advertisements after being found to be misleading about the bank's own green credentials. It was the first time the regulator had barred ads by a bank on greenwashing grounds.

The US Securities and Exchange Commission is also writing separate rules to root out greenwashing in the financial sector. Last year, the agency proposed to toughen the regulation of financial product names, especially those of investment funds with sustainable themes. While financial companies said they support the SEC's effort, they have also asked for changes.

> 'Markets continue to place a premium on corporate sustainability and climate change policies'

"If it's easy to tell if milk is fat-free by just looking at the nutrition label, it might be time to make it easier to tell if 'green' or 'sustainable' funds are really what they say they are," SEC chair Gary Gensler said last year.

As part of its greenwashing enforcement, the SEC last year settled charges with BNY Mellon and Goldman Sachs over allegedly misleading environmental, social and governance claims by the banks. The banks agreed to pay $1.5mn and $4mn in penalties respectively.



Agencies aim to root out greenwashing

"Consumers and markets continue to place a premium on corporate sustainability and climate change policies," says Stacy Kray, co-head of Orrick's environmental practice.

For companies, "we do see risks, including anti-ESG enforcement and legislation efforts led by Republican politicians in the US," she adds.

In March, 21 Republican state attorneys-general challenged ESG-minded asset managers over the effects of their commitments to net zero carbon emission targets.

In a letter addressed to some of the largest US fund managers, originally reported by Reuters, the attorneys-general said "many of you have committed to take actions inconsistent with your clients' financial interests". Several asset managers are also members of the Net Zero Asset Managers Initiative, set up to accelerate the transition towards net zero global emissions.

Amid this tension between regulators and politics, companies will need to spend more time and money scrutinising their own green claims before making them public, Kray believes.

"We don't think this means that companies will no longer try to be green," she says. "Rather that companies will need to be more rigorous with the governance controls and procedures they use to manage and verify sustainability claims."

Strategic risk failure is what unites Credit Suisse and SVB

OPINION

Evgueni Ivantsov

At first glance, it is difficult to identify similarities between the recent collapses of Silicon Valley Bank and Credit Suisse.

SVB was a regional US bank that represented a relatively modern cohort of credit organisations, being a niche player with a specific emphasis on serving start-ups and tech entrepreneurs. Conversely, Credit Suisse was a banking brand with a history dating back to the 19th century and was considered a member of the "global banking elite". It was a systemically important bank and a backbone of the Swiss financial system.

Even the manner in which the two lenders failed was strikingly dissimilar, with Credit Suisse struggling for years and SVB collapsing in a matter of days. Nonetheless, both banks shared a common root cause for their downfall: a combination of toxic culture and mismanagement of strategic risk.

SVB's path to failure started three years ago, when the bank underwent a significant transformation of its business strategy. The arrival of the pandemic triggered a drop in interest rates to historic lows and an influx of cash to tech start-ups, which constituted SVB's core clientele.

In response, SVB's management made a risky decision to capitalise on this opportunity by repositioning itself as an investment firm, and channelling interest-free deposits into securities investments.

As a result, SVB's security investment portfolio inflated rapidly, increasing from 39 per cent to 59 per cent of the bank's total assets in just two years. While short-term results appeared impressive, with a 56 per cent surge in net income and tripled total assets, the bank had become overexposed to interest rate risk.

Given the aggressive strategy pursued to achieve a short-term gain, it is unsurprising that management took no action to mitigate the interest rate risk, as it would have conflicted with the entire growth strategy. The bank's risk culture seemed too weak to question the high-stakes strategy, which ultimately led to disaster when interest rates rose.

In contrast, Credit Suisse's road to failure was much longer than SVB's. In 2015, its new chief executive Tidjane Thiam unveiled an ambitious strategy to reinvent the bank, implementing a radical transformation that overhauled every single business component.

The strategy shifted divisional power and focused on new markets — even though the bank often had limited knowledge and risk expertise in these areas.

This transformation caused a cultural shock in the organisation, resulting in many top managers leaving. Thiam made a dramatic reshuffle of the executive management committee, giving decision-making power to people who accepted the new strategy.

> Toxic culture and strategic risk mismanagement are significant contributing factors to bank failures

Pressure from top management to achieve growth and profitability targets undermined employees' incentives to be risk-prudent, lowered compliance discipline, and blurred risk accountability and ownership. This resulted in a steady decline of the bank's risk culture, leading to aggressive risk-taking, financial losses and misconduct, over time.

Credit Suisse's decline took years

Credit Suisse was too big to be felled by a single event — even those as significant as the insolvency of Greensill Capital, the supply chain finance firm to which it lent billions of dollars, or the collapse of family office Archegos Capital, which caused huge trading losses. However, a series of scandals eroded the bank's reputation to the point where stakeholders lost their trust entirely, and the lender was doomed.

Banking failures such as those of SVB and Credit Suisse are all too common, with toxic culture and strategic risk mismanagement being significant contributing factors. Other notable examples include LTCM, HBOS, Lehman Brothers, AIG and Wachovia.

But, despite the pivotal role played by culture and strategy in these banking failures, risk management divisions and regulators tend to allocate relatively modest resources and attention to scrutinising these areas. The main reason for this is the difficulty in quantifying and measuring intangible risks associated with culture and strategy.

Currently, risk management departments dedicate much more time and resources to monitoring, managing, and reporting on, for example, credit risk than they do to culture and strategic risks. This balance needs to shift. Although not every change in business strategy leads to disaster, each radical strategic move exposes an organisation to new and often high risks.

Risk managers should therefore examine any strategy changes and identify new strategic risks, clearly communicate them across the organisation, and develop credible mitigation plans using their expertise and tools, such as reverse stress testing.

Similarly, regulatory oversight should take a robust approach to examining corporate culture and any significant changes in strategy. A rapid transformation of an existing business model and balance sheet should raise red flags and trigger an in-depth risk review by regulators.

Overall, more attention and resources must be devoted to identifying and managing culture and strategic risks to prevent future banking failures.

The writer is chair of the European Risk Management Council and a member of the Advisory Group on Global Risks at the World Economic Forum

Appetite for geopolitical advice is growing

Consultancies are offering access to former top military and government officials, writes *Miriam Rozen*

From Russia's invasion of Ukraine to worsening US-China relations, geopolitical disruptions were at the forefront of bankers' minds at the start of the second quarter of this year.

James Gorman, Morgan Stanley's chief executive, told analysts in April that "geopolitical risks" ranked as one of the "wild cards out there, which we can't really handicap". In the same week, Jane Fraser, chief executive of Citigroup, warned on an earnings call: "We have to keep a close eye on geopolitics as the US-China relationship becomes increasingly strained and is fragmenting economic blocs." Colm Kelleher, chair of UBS, also in April, labelled the war in Ukraine as "a stark reminder of how fragile our world is", and lamented the "general rise in geopolitical tensions".

To investors, those comments may sound like a cause for caution but, to a growing pack of consultants, they are also a business model validation. Firms including Lazard, Ankura, Kissinger Associates, Eurasia Group, Teneo's WestExec Advisors, and The Cohen Group are all now pitching geopolitical risk-evaluation services — in a variety of forms and fee structures — to financial services executives.

But global companies' growing appetite for geopolitical advice stems from more than the fact of war in Ukraine or US-China tensions. "When I first came to Washington, that kind of information was kept within a narrow group of people," explains Dana White, former chief Pentagon spokesperson under ex-US defence secretary James Mattis, who in March joined Ankura's global strategic advisory practice. "Now, the need to understand the context is so much greater because so many more people have that information."

The consultancies, however, are still testing how to package and price geopolitical risk analysis as they assess the "emerging" demand, says White.

Ankura and many of its rivals offer, first and foremost, access to the knowledge of professionals with top government, military and diplomacy-focused credentials. In late 2021, Ankura acquired McLarty Associates, which is chaired by former White House chief of staff Thomas McLarty and ex-US deputy secretary of state John Negroponte.

Companies are seeking guidance on events such as the Ukraine war
Reuters

"There's a whole cottage industry of former government officials who are basically putting up a shingle saying they're here [to provide] advice," says Theodore Bunzel, co-head of Lazard's geopolitical advisory unit, which the investment bank launched in 2022.

In the past two years, Lazard also hired a trio of military and government intelligence veterans: Jami Miscik, a former CIA deputy director of intelligence; William McRaven, a retired US admiral who headed the hunt for Osama bin Laden; and John Abizaid, a former US general.

> 'It's an unregulated industry right now . . . it's a little bit of a wild west approach'
> **Daniel Hartnett, London Stock Exchange Group**

In building the unit, Lazard's approach was to blend "geopolitical insights from people who have deep experience and knowledge in the industry" with "business expertise within the investment bank", says Bunzel.

The unit's consultants deliver their geopolitical risk-evaluation services both as one-off events and, alternatively, as part of long-term retention relationships. Some clients seek five-to-10-year potential geopolitical scenarios. Others focus on a region, such as the Middle East, or on China — which dominates "the majority of conversations at the moment", Bunzel says.

Lazard has also begun helping companies establish their own internal, dedicated political risk-evaluation units. The consultancy's senior advisers — McRaven, Abizaid and Miscik — share "a very strong process-orientation around these issues", Bunzel says. "They bring the kind of discipline of how you think in a structured way, identify and then monitor the important risks, and how you forecast scenarios."

An emerging question is how much corporate clients will pay for geopolitical-risk evaluation. "It's an unregulated industry right now," says Daniel Hartnett, director of third-party risk intelligence at London Stock Exchange Group, with reference to pricing. "It's a little bit of a wild west approach."

Some providers insist that corporate clients purchase all their services at once; others offer à la carte menus. Some market low-cost subscriptions to regular published analysis as a loss leader. As an executive at one of the providers explains, the idea is to "hook you in" — in the hope that clients will then buy the firm's services for "a special project down the line".

Price-wise, Lazard falls at the higher end. It offers customised "consulting-style engagement" and provides significant, direct access to the firm's senior advisers, which are "one of our most valuable assets", Bunzel says.

However, Kenneth Jacobs, chair and CEO of Lazard, told an industry conference audience in December that geopolitical risk consulting "is never going to be a several hundred million[dollar] business".

Instead, his view is: "What's really wonderful about it is it's a form of dialogue . . . at a moment in time where companies are starved of this kind of dialogue."

Generative AI redefines risk management tactics

Continued from page 1

Tejada, a partner specialising in risk, regulation and finance at Bain & Co, the global consultancy.

Generative AI is a "game changer" for financial institutions, she believes, because it enables them to capture and analyse large volumes of structured data, such as spreadsheets, but also unstructured data, such as legal contracts and call transcripts.

"Now, banks can better manage risks in real time," says Tejada.

SteelEye, a maker of compliance software for financial institutions, has already tested ChatGPT with five of its clients. It created nine "prompts" for ChatGPT to use when analysing clients' text communication for regulatory compliance purposes.

SteelEye copy-and-pasted the text of clients' communications — such as email threads, WhatsApp messages, and Bloomberg chats — to see whether ChatGPT would identify suspicious communications and flag it for further investigation. For example, it was asked to look for any signs of possible insider trading activity.

Matt Smith, SteelEye's chief executive, says that ChatGPT proved effective at analysing and identifying suspicious communication for further examination by compliance and risk specialists.

"Something that could take compliance professionals hours to sift through could take [ChatGPT] minutes or seconds," he notes.

However, some have expressed concerned that ChatGPT, which pulls in data from sources including Twitter and Reddit, can produce false information and may breach privacy.

Smith's counter to this is that ChatGPT is being used solely as a tool and compliance officers take the final decision on whether to act on information.

Still, there are doubts as to whether generative AI is the right technology for the highly regulated and inherently cautious risk management departments in financial institutions, where data and complex statistical models must be carefully validated.

"ChatGPT is not the answer for risk management," says Moutusi Sau — a financial services analyst at Gartner, a research company.

One problem, flagged by the European Risk Management Council, is that

the complexity of ChatGPT and similar AI technologies may make it hard for financial services firms to explain their systems' decisions. Such systems, whose results are inexplicable, are known as "black boxes" in AI jargon.

Developers of AI for risk management, and users of it, need to be very clear about the assumptions, weaknesses and limitations of the data, the council suggests.

A further problem is that the regulatory approach to AI differs across the world. In the US, the White House recently met with technology company bosses to discuss the use of AI before formulating guidelines. But the EU and China already have draft measures to regulate AI applications. In the UK, meanwhile, the competition watchdog has begun a review into the AI market.

So far, discussion about its regulation has focused on individual rights to privacy, and protection from discrimination. A different approach may be required for regulating AI in risk management, though, so that broad principles can be translated into detailed guidance for risk officers.

"My sense is that regulators will work with what they've got," says Zayed Al Jamil, a partner in the technology group at law firm Clifford Chance.

"They will not say that [AI] is banned [for risk management] or be extraordinarily prescriptive . . . I think that they will update existing regulations to take into account AI," he says.

Despite these regulatory questions, and doubts over generative AI's reliability in managing risk in financial services, many in the industry believe it will become far more common. Some suggest it has the potential to improve many aspects of risk management simply by automating data analysis.

Schwartz of Celent remains "bullish" about AI's potential in financial institutions. "In the medium term, I think we will see a huge amount of growth in what [AI tools] are able to do," he says.

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